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The Farming Writers of Eighteenth-Century England *G. E. Fussell* 1

The Big Man's Frontier and Australian Farming *Brian Fitzpatrick* 8

The Influence of Natural Rights and Physiocratic Doctrines on American Agrarian Thought during the Revolutionary Period *Chester E. Eisinger* 13

Lamare-Picquot and the Breadroot *Marjorie F. Warner* 23

Grant's Letters to His Missouri Farm Tenants *LeRoy H. Fischer* 26

The Angora Goat: A Footnote in Southern Agricultural History *James C. Bonner* 42

The Sale and Application of Commercial Fertilizers in the South Atlantic States to 1900 *Rosser H. Taylor* 46

The Theory of the Agricultural Ladder *Shu-Ching Lee* 53

The Early History of Livestock and Pastures in Puerto Rico *Dolores Mendez Nadal* and *Hugo W. Alberts* 61

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AGRICULTURAL HISTORY

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THE FARMING WRITERS OF EIGHTEENTH-CENTURY ENGLAND

G. E. FUSSELL

Ministry of Agriculture and Fisheries, London, England

Everybody in eighteenth-century England was interested in farming.[1] Even the distinctly urban minority was acquainted with farms, fields, and trees, and since farming became more profitable as the century progressed, interest in it grew greater. When so large a proportion of the population is interested in a subject, all sorts and conditions of men write about it. Not only was there money to be made out of the land, but there was money and reputation as well to be made by writing advice for the farmer.

Most of those who wrote farming textbooks professed to have had practical experience and to be recording that experience, but they were a motley crew and almost every one of them cast doubt upon the abilities and knowledge of all the rest. Four of the most voluminous writers were Richard Bradley, William Ellis, William Marshall, and Arthur Young. Bradley was professor of botany at Cambridge, but the last three certainly were farmers, and I am inclined to think that they, like some moderns, made more money out of their books than they did out of their farms. Amongst the other writers were clergymen, schoolmasters, self-styled gentlemen, and self-styled farmers. Some also were probably barristers or at least members of the inns as so many small and large landowners of the day were. They were undoubtedly men of enterprise and were all too eager to accept novelties without very much consideration simply because they were novelties. This makes it all the more difficult to decide whether what they say reflects current practice or merely the trend of advanced thought in farming theory.

To decide that point it is really necessary to know something about the writers themselves, where they lived, and how they got or failed to get a living. Only a few of them are to be found in *The Dictionary of National Biography*, and those who are were usually included because they did something besides writing a book or so on farming. All that is known of many of the others is to be found in their own works. They do not give anything away, and what can be learned is sufficiently meager although never very modest.

The little that is known of the four most voluminous writers is not altogether reassuring. Richard Bradley, the earliest of them, was a fellow of the Royal Society, but I am very much afraid that such a fellowship meant very little in those days. By the aid of this fellowship and his natural abilities Bradley became professor of botany at Cambridge in 1720. When applying for the post, Bradley pretended that he had a verbal recommendation from Dr. William Sherard to Dr. William Bentley. This he supported with the offer to found a public botanic garden at the university. Any balance of the expense that he could not raise from interested and philanthropic persons of his acquaintance he promised to provide out of his own pocket. This he did not do although he got the job. He held it for twelve years and died timely to avoid his expulsion for scandalous behavior.

Not only did Bradley fail to carry out his undertaking to found a botanic garden, but he had no knowledge of classical languages and he failed to deliver the required lectures. This part of his work had to be done by Dr. John Martyn, who later succeeded him. By and large Richard Bradley, F.R.S., was a curious character to hold a university appointment. His farming books were numerous. Ninety years ago only two were to be found in the British Museum, today there are nearly thirty, and I fear that more may be discovered.

I imagine that Bradley was more interested in his farming books than in his job, and they probably brought him in a good deal of money. He was an advanced farmer and did not only concern himself with writing. He was interested in the sugges-

[1] This article was presented as a lecture under the title, "Eighteenth-Century Farming Writers," before the Plough Club at Oxford in the autumn of 1938. The author has written extensively on seventeenth and eighteenth century English agriculture and is currently preparing a book on "The Old English Farming Books: Fitzherbert to Tull." As an aid to readers of *Agricultural History*, the footnotes have been supplied by the editor. Unless otherwise stated, G. E. Fussell is the author of the articles cited.—*Editor*.

tion for a seed drill that had been made in the previous century, and he tried to build a machine along the lines suggested by John Worlidge, who included a drawing of it in his book. When Bradley made it, it would not work. Whether that was the fault of Worlidge's instructions and drawing or of Bradley's failure to construe them I cannot say.

Ernle, writing in the Ministry of Agriculture *Journal* in 1922 on "The Wisdom and Folly of Ancient Book-Farmers," commented unfavorably on the want of books dealing with animal breeding before the nineteenth century. Bradley, however, wrote a book on cattle,[2] the first that had been devoted to that subject since Leonard Mascal wrote *The Government of Cattell* in the sixteenth century. It is characteristic of the time that the arrangement of the book should be sheep, pigs, cattle, and horses. One might almost say sheep for the ubiquitous woolen industry, pigs to feed the rural population, cattle for sale to the towns, and horses for both rural and urban draft.

Bradley, of course, wrote at length on almost every subject connected with farming, and he seems to have read most of the earlier writers. A curiosity amongst his publications, since he is said to have been no classical scholar, is *A Survey of the Ancient Husbandry and Gardening* (1725). He also reprinted in a condensed form John Houghton's weekly miscellany devoted to the improvement of husbandry.

Ellis, who wrote the first English book on sheep and many other things,[3] was certainly a farmer and presumably made his farming pay if only because he lived at Little Gaddesden in Hertfordshire all the time he was writing books. He was not so voluminous a scribe as Bradley, but his works take up a fair space in a bookcase. They are rambling and informative on all sorts of subjects. Ellis was aware of the life around him, and he filled out his books with a farrago of incidental matters. Gypsies particularly were an anathema to him. They were cunning thieves and hard to catch. Once indeed he suspected a party camped on the waste at the edge of some open fields of stealing a sheep. He went to accuse them and demanded to inspect their camp, but they put him off with the pretext that one of their women was in labor and it would be indecent to advance farther. He was furious and unbelieving but what could he do. Many other anecdotes of the sort enliven his pages, and his works can be used as sources for the conditions of contemporary rural life. He was a man who trained servants, tried to sell "improved" implements, and indulged in a variety of business activities in addition to his farming and his writing. Subject to some reserve he can be accepted as presenting a good contemporary description of farming in Hertfordshire, and his record of what was done in other counties may also be trusted.

Marshall and Young, bitter rivals at the end of the century, were both even more prolific than Bradley at the beginning and Ellis in the middle of the period, but no one could rival Young's output, not even Marshall with his Rural Economy series and his massive Reviews of the reports to the old Board of Agriculture. Today it is the fashion to believe that Marshall's writings are likely to be more accurate than Young's and with a show of reason. Marshall lived in most of the districts he described; Young only visited them. Young's method of gathering information was doubtless cursory observations combined with quasi-detective conversations with all and sundry.[4] This is no bad method of gathering information, although the suggestion I once made to a tyro research worker that he should visit the village pub and drink beer with the locals was received with some reserve.

The important thing about these two men is not their personal idiosyncrasies but their method which was new. They did not sit at home and write about farming. They went about the country and found out how it was done. They were determined to find out the facts, and they recorded what they learned in exact terms. The result is that their published works—Young's massive treatise on The Elements of Agriculture has yet to see the light of print—with the county reports of the old Board of Agriculture form a mass of exact evidence on the state of agriculture during the last thirty years of the eighteenth century that is almost impossible for one man to assimilate.

The less well-known writers were more prone to declare that they were men of practical experience. Neither Marshall nor Young needed to have any qualms on this point, but both were sensitive when attacked and like most other farming authors of

[2] "The First 18th Century English Book on Cattle," Ministry of Agriculture, *Journal*, 42:1235–1243 (March 1936).

[3] "The First English Book on Sheep," *ibid.*, 40:436–440 (August 1933).

[4] "My Impressions of Arthur Young," *Agricultural History*, 17:135–144 (July 1943).

the day capable of venomous invective in reply to their adversaries.

The age was one of hearty living and the habits of the time made men full-blooded: as the contemporary incidence of diseases shows. Young was himself an embodiment of the age and did not hesitate to condemn the valueless writings of his contemporaries. In one of his earliest books he made a fierce attack on all general treatises, systems, and dictionaries and complained of the large number published. He declared that they were useless, "consisting of the most heterogeneous parts, purloined out of former books on the same subjects, without a common knowledge to discover the good from the bad."[5]

Young was thoroughly acquainted with the literature of his subject and in more than one of his books commented upon the writers who had preceded him, usually with the harshest criticism. John Mills, for instance, who was a translator and compiler in the middle of the century, he credited as a good man, but his writings often advised "The vilest heap of absurdity that ever disgraced common sense!"[6] Such words leave no one in any doubt. One of the worst results of this sort of thing was that experiments suggested by the writers failed owing to their ignorance and caused practical farmers to regard all books on farming with derision.

A few years later in *A Course of Experimental Agriculture* (1770), Young returned to this subject and pointed the moral. "The first point an inquisitive reader attends to," he wrote, "is the reality of the experiments; an enquiry not a little necessary in an age so fertile in book-making, which produces so many experimental husbandmen, whose fields yield such great crops without soil, and whose cattle are fattened so nobly without food—farmers without farms. But geniuses, in whom invention supplies the defect of land, seed, cattle, implements, and every requisite save pens and paper, while such continue to write, it is very necessary, in works of this nature, for the author to set his name to his labours, with that of the place where his experiments were made. . . ."[7] *A Course of Experimental Agriculture* contains a very large number of experiments, all accurately described and with figures attached to them. One wonders whether all these experiments could really have been carried out in the field by so young a man as Young then was. Were they real experiments or were they Young's estimates of probable results?

On another occasion when he had been attacked, Young protested that because he had been addressed in the language of Billingsgate was no reason for replying in the words of a fishwife, but it would be difficult to distinguish this difference in the virulence of his reply. His opinion of the book farmers, like so many of his other views, changed, and fifteen years later he expressed himself as satisfied that the disadvantages of the textbooks had vanished. "The art of writing books on Agriculture in a London lodging," he wrote in 1785, "and dictating the management of farms, without the occupation of a field, died probably with Dr. [John] Hill; this age has too much good sense to be imposed upon."[8] Lucky and incredible age!

When so great a man as Young indulged in such courtesies of debate, lesser men might be expected to profit by his example. Many of them did, although that is not quite fair. It was a fashion of the day that all men followed. Many of the minor writers, not content with condemning the works of their fellows condemned the farmers as well. The farmers did not profit by the books. They did not read them or so the authors suggested. The majority of them probably could not had they wished. They were, as many modern writers have so ably and so often said, full of a reverence for traditional methods which amounted to stupidity. Indeed it is a strange thing in the light of such well founded opinion that farming has ever made any progress at all. Curiously enough Henry Home accused his fellows of the same acceptance of tradition. "Writers on agriculture," he said, "very few excepted, deliver their precepts from a study lined with books, without even pretending to experience. Principles and propositions are assumed on the authority of former writers: opinions pass current from generation to generation; and no person inquires whether they wear the livery of truth."[9]

A few years later the Rev. Dr. John Trusler, whose imagination and pen were almost as versatile as those of Daniel Defoe (who produced *A Descriptive Account of the Islands Lately Discovered in the*

[5] Arthur Young, *The Farmer's Letters to the People of England*, 246 (ed. 2, London, 1768).

[6] *Ibid.*, 248.

[7] Arthur Young, *A Course of Experimental Agriculture*, 1:vii(Dublin, 1771).

[8] *Annals of Agriculture*, 4:352 (1785).

[9] Henry Home (Lord Kames), *The Gentleman Farmer*, viii (Edinburgh, 1776).

South Sea without having been further afield than Leyden), complained that the average book on farming was too full of theory.[10] It led gentlemen to try experiments instead of farming for profit like an ordinary farmer. His own book was, of course, quite free from that fault and prescribed the common practice for the advantage of gentlemen who lived in the country and kept some land in hand. Trusler himself was a commercial adventurer although he was a clergyman. He wrote all sorts of things and finally undertook to publish and issue them himself. He tried to sell his book of holograph sermons by mail order, circularizing the whole of the parish clergy of the country for the purpose. He is indeed a type of the ingenious men who wrote farming books and adopted all sorts of schemes to sell them.

One of them, a schoolmaster, John Randall, adopted, or so I suspect, the disguise of Mr. Ladnar of Kroy as the author of one book mainly to give himself an opportunity of praising his own other works.[11] Actually Randall had a school at Heath near Wakefield, but that is no reason why he should not adopt the simple ruse of spelling York and his own name backwards. Ladnar dedicated his book ironically to the Monthly Reviewers, a body which seems to have been unduly severe upon farming books and which had attacked Randall's *Semi-Virgilian Husbandry* (1764). This work he had presented to the *London Chronicle* possibly because he thought it would advertise a seed drill he wanted to sell or perhaps out of pure philanthropy. Since Ladnar offered what seems to have been the same Universal Seed Plough, I think there is little doubt that Randall and Ladnar were one and the same. Such a method is almost worthy of a modern advertising agency.

Another man, whose name I have not been able to trace, but who signed himself "A Real Farmer" supported his claim to that title by an autobiographical preface. He had a most adventurous life. His history is as romantic as the contemporary picaresque novel, and curiously enough the details are very similar to the established routine of the fiction writers of the time. It may be, of course, that the fiction described a type of life that was common in the eighteenth century, or possibly "A Real Farmer" was cooking the evidence. It would be too much to give the story here, but it began in his childhood. He ran away from home because he was ill-treated by his stepmother and got a job on a farm. When he gave that up he set out for America but only got to London, narrowly escaping the press gang. This was enough for him, and he took horse for home. On the way he got a job on another farm; so clearly he had farming experience.[12]

When such tricks were adopted to sell books and to convince the public that the writers were really authorities on their subject, every writer's jealousy of all others is easily understood. A storm of controversy arose about particular books and their authors. I do not mean the kind of controversy that raged about the drill husbandry that owed its inception to Jethro Tull and did not terminate until over a hundred years after his book appeared. It has already been exhaustively dealt with elsewhere.[13]

The kind of controversy I have in mind was much more personal. It concerned the qualifications of a writer and the value of his work. It was not concerned with particular proposals—indeed the more fantastic the proposals the more readily they were accepted—but with the presumed uselessness of a book and incompetence of its author.

An example is the storm aroused by George Winter's *New and Compendious System of Husbandry* (1787). Winter was one of the numerous persons who invented seed drills, and of course he wanted to sell his, so he wrote a book about farming to advertise it.[14] This was not an original idea, but he really was a farmer and lived in Gloucestershire. There is some want of frankness about his own statement of his object. He said that he wrote the book primarily to place his twenty years of farming experience at the disposal of the public, but that is only to be expected of an advertiser. The

[10] "The Rev. Dr. John Trusler: A Commercial Cleric of the Eighteenth Century," *Notes and Queries* (London), 156:149–151 (Mar. 2, 1929).

[11] "A Schoolmaster-Farmer of Eighteenth-Century Yorkshire: John Randall and the Semi-Virgilian Husbandry, 1764," Ministry of Agriculture, *Journal*, 39:641-649 (October 1932); and "A Yorkshire Book Farmer's Ingenuity: Mr. 'Ladnar, of Kroy,' 1764," *Estate Magazine*, 32:278-282 (April 1932).

[12] " 'A Real Farmer' of Eighteenth-Century England and His Book, *The Modern Farmers Guide*," *Agricultural History*, 17:211–225 (October 1943).

[13] T. H. Marshall, "Jethro Tull and the 'New Husbandry' of the Eighteenth Century," *Economic History Review*, 2:41–60 (January 1929).

[14] "George Winter and His Book on Farming," *Notes and Queries*, 155:294-295 (Oct. 27, 1928).

book is quite a useful textbook and certainly did not deserve the harsh treatment it received at the hands of the *Monthly Review*. Probably Thomas Comber, a contemporary farming author, wrote the review and that may explain its severity. He shed crocodile tears because his integrity of judgment forced him to condemn the book, painful as it was for him to wound the writer in that most sensitive part, his self-love. Winter was, he wrote, a well-meaning person, who by thinking and talking with ignorant neighbors, persuaded himself in good earnest that his book would be of great general service. If recording the experience and practice of working farmers is of service, the book did its job, but the reviewer thought it trivial and superficial most likely because it lacked wonders and was written from a not particularly advanced district.

Almost immediately an old experienced farmer who called himself Benjamin Bramble came to the rescue. He issued a reprint of Winter's book with a preface by himself entitled *The Farmer Convinced, or the Reviewers of the Monthly Review Anatomized*. He condemned the review in fine resounding terms. Its statements were vague, futile, and fallacious. For himself he was only a country ignoramus, but sometimes he entered into company with what the world called sensible men. Far from this a reviewer is commonly supposed to be some mercenary needy wretch who writes for hire and is equally ready to praise or condemn, as his employers direct. Both sides proclaimed their natural politeness, but it is difficult for a modern eye to discern it.

The *Monthly Review* was never anything less than severe, and no less a person than Young complained of its treatment. In the preface to his Eastern Tour he reasonably claimed that a writer of husbandry should be tried by a jury of real farmers instead of falling into the hands of such a motley crew. Clearly none of the writers trusted each other although they did not scruple to copy from each other even while condemning the work from which they were appropriating ideas; and many of the appropriated ideas were very odd.

The problem of reclaiming the uncultivated land in the country was one that occupied a good deal of attention, and an idea that occurs here and there in the literature was outlined fairly concisely by Matthew Peters in the 1770s.[15] At that time the total area of the country was not precisely known, but some estimates came very near the truth. Peters accepted 39 million acres as a proper computation of the area of England and Wales, and of this area, he thought 9 million acres were waste of some sort or another. With the optimism of his age he thought that the whole of this area could be added to the arable land. In addition there were 6 million acres of forest, chase, and common heath and 2 million acres of downs and plains, all available for cultivation. This makes a total of 17 million acres of reclaimable land, a largish proportion even for those days. His idea, or perhaps I should rather say, the idea adumbrated by the various people who took it up, was that the forest and chase should be divided into 500-acre farms and let at £125 per annum. These farms were to be made one-third pasture, and of the balance 80 acres was to be under wheat, so presumably Peters had the four-course system in mind for this land. He anticipated with the same optimism that the yield of wheat would average 32 bushels an acre although the national average at that date can have been no more than 20 as he himself admitted. The heaths were also to be cut up into farms of the same size but to be let at £62.10.0d. on 25-year leases in order to allow the tenant to get the benefit of his reclamation work. This was a grandiose scheme and not likely to be successful, although what was done in Lincolnshire and north Northumberland slightly later on lends color to the assumption that it was possible. The curious thing to my mind is that the writers who dealt in this project chose 500 acres as the optimum size of farm. Neither then nor at any other time, so far as I am aware, has the major number of farms in England been of this size and nothing would lead one to suppose that it is in fact the most economic size of holding.

If it had been carried out this scheme would obviously have been of the very greatest value to the community, as well as bringing a profit to the man who did the work—a not unimportant consideration. These writers, however, did not intend that the reclamation of the uncultivated land should be carried out gradually as it was but that it should all be done at a stroke. This is clearly impossible, but it is no less impossible than the rewards offered for adopting other plans.

The new crops, turnips, clover, lucerne, sainfoin, timothy, and ryegrass are all discussed at length in the general works, and some of them are honored in specific treatises. I have no doubt that the highly

[15] "Matthew Peters, Civil Engineer and 'Book Farmer,'" *ibid.*, 154:291–293 (Apr. 28, 1928).

improbable rewards to be gained from their cultivation which many books offered played some part in the slow rate at which they were brought into the normal routine of everyday farming. It is indeed refreshing to turn from some of the more speculative writings to the casual notes made by a farming squire who recorded what he and his neighbors actually did. Such a man was Edward Lisle of Crux Easton, Hampshire.

Lisle was a landowner who had either estates or relations in Hampshire, Dorset, Wiltshire, the Isle of Wight, and Leicester.[16] His book is a series of notes on what he actually did on his farms and what he learned in conversation and correspondence about what other farmers were doing. Such evidence is invaluable for the districts touched upon, and I could wish that more landowners had made similar notes. We must be duly thankful that a descendant had the book printed in 1756. Few such records of farming practice, scrappy as these notes are, have come down to us, and indeed it was not till Young began his tours that anything of comparable worth was written. Of course I use the word worth in the sense of value to the historian.

At about the same date John Mortimer issued his *Whole Art of Husbandry* (1707). This book is a compilation although Mortimer had some practical experience. He had come into an estate in Essex in 1693. The book supplies some details about the farming of Essex, and these are perhaps derived from personal experience or conversation. It also contains references to farming practice in other counties, and since most of these references are identified in place they may be accepted with one reservation. Mortimer used books by other writers, and these sources and their dates must be identified before the time when these practices were usual can be ascertained. These two writers, different as their methods were, do supply something more than mere speculation and the provocative theorizing that brought the "book farmers" into disrepute with each other as well as the audience they intended to reach.

Another man who wished to obtain information about the actual practice of farming in different parts of the country was John Houghton, F.R.S. He founded the earliest farming periodical.[17] His weekly, *A Collection for Improvement of Husbandry and Trade*, was an ambitious project designed to be quite encyclopedic. It followed his earlier attempt at the same sort of thing that had been issued at irregular intervals. Houghton secured contributions from some of the most famous men of the day and from less well-known farmers and so on, but not so many as he may have wished. Here again can be found information descriptive of systems or parts of systems actually practiced. That is the important thing about these three men! They described things that were done instead of proposing things to be done that must have seemed extraordinarily fantastic to the common man.

Young himself set the seal of his approval on Houghton's enterprise, but Houghton had no imitators for fifty years, if Bradley's reprint of a condensed version of the Collections is excepted. In 1764 the *Museum Rusticum* began publication, and this also purported to be written by practical men who described things they were personally acquainted with, but it fell into some disrepute because at first the articles were unsigned. It ran to six annual volumes in Young's words "as long a duration as it merited."[18] Some of the papers it contains are of the usual theoretic character, but others are valuable, and Young was, I feel, unnecessarily severe upon a publication to which he himself contributed. There were a few other short-lived periodicals before Young commenced the *Annals of Agriculture*, but none of them is important. Such a work as *The Farmer's Magazine* for instance was almost entirely a scissors and paste production, from which I judge its proprietors were economical.

I have already mentioned Young's dislike of dictionaries, encyclopedias, and so on. Only seven were published during the century, and some of these must have been useful to farmers if they saw them.[19] The information they provide is mainly second-hand, but that is more or less natural because all such compilations rely on the authority of earlier works. Of course some of the material they reprinted is no less odd because it is reprinted, but

[16] "A Western Counties Farmer in 1700," Ministry of Agriculture, *Journal*, 39:123-129 (May 1932).

[17] "John Houghton, F.R.S. (b. 1640, d. 1705)," *Notes and Queries*, 148:345–346 (May 16, 1925); "Early Farming Journals," *Economic History Review*, 3:417-422 (April 1932). See also Mary G. Lacy, "An Early Agricultural Periodical," Agricultural History Society, *Papers*, 2:445–454 (Washington, 1923).

[18] *Annals of Agriculture*, 1:5 (1786).

[19] "Eighteenth Century Agricultural Dictionaries," London University, Institute of Historical Research, *Bulletin*, 7:144–148 (February 1930).

there is a good deal of sound advice to be discovered amongst the rubbish. Though they may have been practically useful, however, they must be used with caution as historical sources. Their own sources must in turn be traced and dated. When that has been done they may be used, but only then. Again some of them contain details of experiments with costings, many of which I have no doubt were carried out only in the imaginations of the writers, but they have a value. They must have been able to pass muster, and to do that the costs must have been of an order that would not be ridiculous in the eyes of the reader. Probably then some idea of the normal expenses of ordinary farm operations can be obtained from them. As much or as little may be said for the costings applied to experiments described in individual writings.

Compared with such works as the dictionaries the treatises on farriery and other subjects are comparatively insignificant in bulk. Farriery was a term for what we might now call veterinary science and treated largely of the cure of animal diseases. I am not competent to offer any opinion of these works, but some of the cures are quaint, and one of them has stuck in my mind. At that time antimony was used as a medicine, and one bright spirit invented what he was pleased to call an everlasting pill compounded of antimony and other things. This was about the size of a round bullet of the kind used in the muzzle loaders of the day and was forced down a cow's throat. When it had performed its function, it was sought in the pasture where the cow grazed and if recovered used again and again. Time cannot have been so precious then as it is reputed to be now, and patience much less easily exhausted.

This can hardly be paralleled, but some of the secret manures suggested were nearly as good. One invented by a Mr. Liveing whose name is all that remains to us is discussed with approbation by Samuel Trowell in 1739.[20] It was a secret preparation composed of "foul salt fermented with other ingredients to be had in great plenty in all parts of Great Britain." It was omnipotent. It increased seed and strengthened the plant; it destroyed rushes, grubs, moss, and worms; it preserved turnips from fly and killed snails, slugs, and all other insects; and it could be carried to the field on horses' backs, thus saving cost and the damage done by heavy wagons. What more could heart desire? Only the formula is lacking.

But it is not in such frivolities as these that the true value of the agricultural literature of the day is to be found. Towards the end of the century real science was emerging. The theory of soils, of plant growth, of the mechanics of the plow, and so on were all being discussed in separate works. I cannot pretend to estimate the value of the more scientific works, but Russell M. Garnier in a book that is now almost forgotten has provided an excellent summary.[21] Many modern scientific works also have prefaces that give outlines of the history of their particular subject.

I have pointed out with perhaps too much emphasis that the different writers almost invariably cast slurs upon each other. Quite a large proportion of this mutual condemnation is well-deserved, but I think the books must have served a good purpose. They probably were effective in rousing popular interest and in engaging the attention of landowners, quasi-scientific bodies, and the local agricultural societies formed towards the end of the century. The farmer himself probably learned a good deal more from example than he did from precept if only because he was usually quite illiterate. In the rural mind here as in Missouri there was a distinct feeling that "you've got to show me."

Our modern interest in these books is, of course, quite different. We value them because they tell us something of how farming developed, but the fact that they distrusted each other's pretensions so largely makes it necessary to bring a highly critical faculty to bear upon them when using them as historical sources. Such men as Houghton, Mortimer, Lisle, Ellis, Young, and Marshall are all too few. They dealt in facts; many of the others dealt in highly imaginative theory. The most extravagant rewards were promised for such contradictory things as increasing rabbit warrens and destroying warrens to increase the arable area, for breaking up grass and laying land down to grass—these are, of course, not necessarily incompatible—and for using a light two-horse plow in land for which it was quite unsuited. But something can usually be abstracted from the worst of them. Almost all hint or state boldly that such and such a method was common in a particular place. The danger of making such statements is at once apparent; and

[20] "Samuel Trowell's Farming Theories, 1739," Royal Agricultural Society of England, *Journal* (1929), 90:162–169.

[21] Russell M. Garnier, *History of the English Landed Interest: Its Customs, Laws and Agriculture (Modern Period)*, 280-299, 326-359, 423–446 (London, 1893).

they may, therefore, be accepted. They must be examined, however, because they may have been copied from earlier works, and it is only when their origin is traced that their literary—not necessarily the same thing as physical—date can be determined. Used with due caution the farming textbooks written in the eighteenth century afford a background to the history of the development of the industry in that century, but they must be supplemented by other sources of information. For the last thirty years the tours and surveys made by Young, the Board of Agriculture, and Marshall provide almost too much, but for the first seventy there is nothing but the comments of travelers, contemporary novels, essays, and descriptive writings generally. Nevertheless a fairly complete story can be made out.

I am afraid that I have dealt with the more frivolous aspects of eighteenth-century agricultural authors here, but those aspects are important because they provide a standard of criticism, perhaps a little severe, which can be applied by the modern research worker in weighing the evidence these writers provide.

THE BIG MAN'S FRONTIER AND AUSTRALIAN FARMING

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Important differences between American and Australian lines of life, which struck off, each at its peculiar angle, in the second half of last century, are probably attributable in large part to the contrasting public land policies adopted by their governments in the decade of the 1860s.[1] An American in Australia, Carter Goodrich, put the social resultant neatly when he wrote: "Certainly the United States owes its individualism largely to its small man's frontier; I think it is not fanciful to suggest that Australia owes much of its collectivism to the fact that its frontier was hospitable to the large man instead."[2] Readers of C. Hartley Grattan's book, *Introducing Australia*, will realize in what bold colors this intercontinental contrast of "individualism" and "collectivism" stands, especially when the pre-Roosevelt America of weak trade-unionism and absence of "labor" party politics is considered.[3]

The origin of much of this social difference is fairly traced to the divergent lines which the policies of the United States and the Australian colonies took towards small men, would-be farmers, and homesteaders or selectors as they are known in Australia. The Federal Government of the United States had acquired administrative control of public lands in the 1780s, and the pioneer settlers had sought land legislation favorable to them from this time forward. By the Preemption Act of 1841, they were granted the right to stake off claims ahead of the government surveyors and to buy the land they held at the minimum price free from competitive bids when it was opened to settlement. The other crucial statutes in the United States were the original Homestead Act of 1862 which authorized free

[1]The author of this article has been research officer in Australian history at the University of Melbourne since 1940. He is a graduate (B.A., 1925; M.A., 1934) of the same university and the author of *British Imperialism and Australia, 1783-1833; An Economic History of Australasia* (London, George Allen & Unwin, 1939; ed. 2 in preparation, 1946), *The British Empire in Australia: An Economic History, 1834-1939* (Melbourne University Press, 1941; ed. 2 in preparation, 1946), *A Short History of the Australian Labor Movement* (Melbourne, Rawson's Bookshop, 1940, 1944) and a chapter on "Secondary Industry in the Economy of Australia" in *Australia* (University of California Press, due for publication, 1946), edited by C. Hartley Grattan. The article here printed was prepared for *Agricultural History* through the good offices of the Australian News and Information Bureau.—*Editor.*

[2]Carter Goodrich, "The Australian and American Labour Movements," *Economic Record* (Melbourne) 4:206 (November 1928).

[3]C. Hartley Grattan, *Introducing Australia*, 116–14 (New York, John Day Co., 1942).

grants of 160 acres to farm settlers, the later modifications of this act, and the Morrill Act of 1862 which authorized grants of Federal land to the States for the establishment of agricultural colleges. In Australia there was no national executive and legislative authority corresponding to the President and Congress of the United States until the six colonies were federated in 1901 to form the Commonwealth.

Earlier each colony in Australia had its own government, responsible to and made up of members of its elected parliament, which had wide jurisdiction, including from 1856 the disposal of crown lands, *i.e.*, unalienated public lands. The majority of the population (1,145,000 in 1860) lived in Victoria (47 percent) and New South Wales (31 percent), where, after the exhaustion of rich alluvial gold workings, the problem of putting a large new population to productive work pressed particularly heavily on the governments. After the gold discovery in California in 1848, the first great strike of modern times, extensive deposits were uncovered in 1851 in New South Wales and then Victoria. The last-named produced more gold in the fifties than California did, but within a decade of the first discovery gold digging had ceased to offer a livelihood to the majority of nearly 150,000 men who held miner's rights in 1858.

This situation gave rise to pressures which resulted in the land legislation of New South Wales and Victoria which compares and contrasts with the United States Homestead Act of 1862. The Australian legislation affected to provide land selections for unmoneyed men as the American legislation did but achieved relatively little such settlement. The crucial statutes of the Australian colonies were the Crown Lands Alienation Act of 1861 in New South Wales, followed by amending acts in 1872, 1875, and 1880, and in Victoria the Sale of Crown Lands acts of 1861, 1862, and 1865. The principal New South Wales law is known as the Robertson Act; the Victorian laws are respectively the Nicholson, Duffy, and Grant acts. A preemption legislative ordinance had preceded this colonial legislation in 1847, but the imperial order in council of that year addressed itself to the interests of pastoral tenants of the crown, rather than would-be farmers as the United States Preemption Act of 1841 did. These large squatters had occupied without serious legal hindrance in the previous dozen years most of the arable land of New South Wales and Victoria. The 1847 order in council confirmed them in possession of their holdings under lease and gave them certain preemptive rights. Thus a big man's frontier was established in the fertile southeast of Australia with legal backing such as the ranchers of the American West never had.

Unlike the United States Homestead Act which offered pieces of the public domain free to applicants with few conditions other than the requirement of five years' residence, the New South Wales and Victorian legislation, while imposing terms of residence and improvement, provided for payment by the settler. Robertson's New South Wales Act authorized settlement on crown lands before survey at £1 per acre for blocks of from 40 to 640 acres; a deposit was required and easy terms were given for payment of the balance. During the twenty-three years this act and supplementary legislation remained in operation, 23 million acres were sold on conditional purchase terms. This amount was about a third of the acreage taken under the Homestead Act in the shorter period 1863–1880. But no more than 400,000 of the 23 million acres was under cultivation when the period ended. Some of the balance was in the hands of legitimate small settlers who had preferred grazing sheep on small selections to farming. The bulk had passed in freehold to the pastoral tenants whose leaseholds the government threw open to selection by "farmers" in 1861.

The failure of the Robertson Act as a means of extending crop farming in New South Wales was a consequence of the abuse of its provisions by the pastoral users in possession. They were able to select the bulk of their leaseholds for themselves by taking advantage of loopholes in the act and to buy the freehold with money advanced to them by banks which, having carried them from wool clip to clip under the local system of liens on prospective clip and mortgage of livestock, had to protect their advances by supplying finance to preserve the leaseholds as sheep runs. Relatively far greater hurt was done the farm-settlement purpose of the Robertson Act by acquisition of numerous selections by holders of runs through dummying and peacocking than was done the purpose of the United States Homestead Act by the abuse of its commuting provision, under which financiers were able to take over numerous homestead blocks by

making cash payments in consideration of which the residence requirement was waived. Sir Timothy A. Coghlan, Australia's pioneer economic historian, characterized Robertson's Act as "a law which made perjury a commonplace incident in the lives of thousands of people."[4]

An "Alphabet of the Land Act," written by a squatter's mother of the period,[5] referred to the same racket of squatters and the applicants they put up for selections in the lines:

A was the Act, antecursor of strife,
B was the Bill that brought it to life.
C was the Court, overcrowded with law,
D was the Dummy, the creature of straw.
....
G was the Grazier whose cattle were poor,
H was the Homestead he sought to secure.
....
O is the Oath that was sacred of yore,
P is the Perjury, shameful no more....

The procedure of the bank-backed squatter was made easy for him by the provision of the act which recognized as an applicant for land any person over two years of age. Friends, relations, dependents, and even paupers in an old men's asylum made applications by the thousands. As often as not, bona fide applicants found themselves beaten at the start by the squatter, who, knowing the location of the water holes on his run, put up his dummies to select the watered areas. The eyes having been picked out of the run by this peacocking, the rest of it was rendered useless to the farmer or small grazier.

Unquestionably, such malpractices, including fraudulent selection by small men who had no intention of farming but proposed to blackmail squatters, made the 1861 act almost useless as a means of extending agriculture.... The failure of the act is indicated by a comparison of some statistics of the first three years and the last three years of its operation. In the earlier period, 19,000 occupiers farmed 300,000 acres, in the later period, 40,000 occupiers farmed 700,000 acres .... [By conditional purchase and, from 1872, sale by auction with the residence requirement] 39m. acres was sold, of which only .42m. represented an increase of the cultivated area of New South Wales.[6]

[4]T. A. Coghlan, *Labour and Industry in Australia*, 3:1350 (Oxford University Press, 1918).

[5]Robert D. Barton, *Reminiscences of an Australian Pioneer*, 18–19 (Sydney, 1917).

[6]Fitzpatrick, *The British Empire in Australia*, 199–200.

In Victoria a procedure of selection *after* survey was laid down by the government. The Nicholson Act of 1861 provided that 3 million acres of squatters' pastoral holdings should be surveyed for settlement in blocks of up to 640 acres purchasable on terms at £1 per acre with residence and cultivation requirements. The next year the Duffy Act denominated another 10 million acres for survey and selection, and in 1865 the Grant Act threw open another 8 million. In this colony, as in New South Wales, dummying, including peacocking, aided by bank finance for squatters, defeated the purpose of the legislation. The Melbourne *Argus* recorded in October 1865:

Much of the very best land of the colony has passed away for ever to the pastoral tenants under the very Bill which was intended to provide farms for the people.... Every risk was run (by the squatters) for the chance of securing the land. Relatives, friends, and agents of all kinds figured amongst the applicants .... The result has been the acquirement by many of the squatters of magnificent freehold estates from the Crown for a consideration wholly inadequate.... Wherever the prices have been valuable, these agents have been created by the capitalist... in numbers which have extinguished the chance of the *bona fide* agricultural settler.... The conditions of selection and the penalties of the Duffy Act were never enforced. Everybody went in for the land swindle whether he wanted land or not.[7]

The commissioners of crown lands and survey claimed that more than 2,500 improving holders had settled on approximately 700,000 acres of farm land in the two years after the amendment of 1865. They reported organized efforts to frustrate the legitimate operation of the legislation and observed that a large number of bona fide applicants had attended at the land offices unsuccessfully. By 1870 the number of holders of farming blocks in Victoria had risen from 14,000 before the selection acts to 30,000; the proportion of squatters is not known. Australian agriculture did make some gain in the "cabbage garden" of Victoria after the selection acts. The percentage of farmers and farm hands to all male breadwinners rose from 15.5 to 27.7 percent between 1861 and 1881, but in New South Wales the percentage actually fell from 24.5 to 21.5 percent.

It was not until the last years of the century that more careful and systematic closer-settlement policies, which succeeded and replaced the selection

[7]Quoted in *ibid.*, 203.

policy of the sixties, effected a large extension of wheat and other crop farming and enabled the Australian colonies to contribute substantially to the cereal export trade in which the United States and Canada had long figured. In New South Wales the crop area at the end of the century was eight times larger than it was on the eve of the selection acts; in Victoria, seven times.

The bias of governmental interest towards the big man, the pastoralist, and away from the small man, the crop farmer, is further shown by the failure of the Australian colonies for many years to enact legislation corresponding to the Morrill Act in the United States to encourage agricultural training and research. Although the Victorian equivalent of the Homestead Act actually antedated that measure, it was 1874 before the Victorian government set aside 5,000 acres for an experimental farm, 1879 before the first crop was put in, and 1884 before an Agricultural Colleges Act was passed. Dookie Agricultural College in Victoria and Roseworthy in South Australia were established in 1885, and similar institutions were opened on the Hawkesbury, New South Wales, and Longerenong, Victoria, three years later. But the United States Department of Agriculture had acquired a propagating garden from its administrative predecessor in 1862 and had begun to develop an experimental farm three years later.

By 1880 the United States farm area was 150 million acres, compared with 6 million in Australia with a similar total but less fertile area. Even in the sixties William H. Seward, the American Secretary of State, had said that the machine harvester "pushed the frontier westward at the rate of thirty miles a year."[8] Australian farmers had devised their own harvesters, admirable for their task, but the readiness of American legislators to make land available to the poor was not matched by Australian colonial legislators who effectually preserved a big man's frontier for the owners of such flocks of sheep as no man had ever dreamed.

An American-Australian contrast of this sort should not be drawn in blacks and whites, however. In the United States the Homestead Act of course gave rise to non-farmers' chicanery and sharp practice, if not to the breathtaking extent of the squatter-*cum*-bank distortion of the Australian legislation. And it may well have been that an Australian farm-export industry comparable with the American would have been uneconomic in the seventies and eighties when American farm production was so greatly increased. Moreover, Australia had no such vast areas of good arable land to tap as had the contemporary United States. In the United States, government was less fettered by irremovable land policies than was Australia by those of the former British imperial authority. And the great weight of overseas capital in banking and agency companies interested primarily in Australian wool rather than food production no doubt mattered more than legislators' policies.

The predominance of wool in the Australian economy of the nineteenth century and the forces which this great export industry rallied to the defence of the handful of squatters who faced the clamor of a hundred thousand ex-miners for farm land in the 1860s were well understood at the time when a large extension of Australian small farming *might* have been made. Individuals in Australia were imbued with a sense that an independence such as the small man in the United States expected, awaited them also. A contemporary account runs:

> The free selection clauses of the Land Acts of the principal colonies have promoted the alienation of their territories so rapidly that no increment of the produce of the land has been able to pay for it. Squatters, to defend their runs and stations from blackmailers, (*i.e.* would-be farmers!), have purchased by auction and "dummyed" millions of acres. Payment by them was impossible in many cases. The banks, however, came to their assistance and lent them money to pay the Government....
>
> It can readily be seen how the system of banking, which admits of preferable liens on stock and wool, has thus helped the squatters to accumulate landed estates. Disposed though the Crown lessee would himself be to save his run from the free selector, he would often be unable to do so, but for the assistance of his banker or financial agent. It is not surprising, then, that there has been an immense increase of banking capital and resources to provide the accommodation which demands of such magnitude created.... Of the total debts due to the banks at June 30 last, amounting to more than £73,000,000, it has been estimated that fully £55,000,000 is due by squatters.... And to this sum of £55,000,000 invested by the banks in pastoral freehold properties must be added about £20,000,000 consisting of the paid up capital and loans (in nearly equal proportions) of about thirty land mortage and investment societies, the bulk of them with English proprietors.[9]

[8]Quoted in Edward Frank Humphrey, *An Economic History of the United States*, 320 (New York, 1931).

[9]*Official Directory and Year Book of Australia*, 1884.

This combination of big interests and the exclusion of the great majority of land seekers from ownership of a stake in the country, which it brought about before Australia entered the world agricultural, let alone industrial, lists, may reasonably be accepted as largely responsible for some unusual settled attitudes of the common run of Australians. Industrial as distinct from craft unionism was well established in Australia as early as the 1880s. It rapidly became a powerful influence throughout the basic pastoral and mining industries which were concentrated even then in a few, mostly absentee, hands.

A labor party arose and under liberal parliamentary institutions soon held the balance between the traditional free-trade and tariff-protection parties in the early 1890s. Systems of compulsory arbitration of industrial disputes and fixation of wages and working conditions by public authorities were set up about the same time. Indeed, important phenomena that did not make their appearance in the United States on a similar scale in terms of the general community until the era between the two world wars were manifest in Australia at least a generation earlier. It is reasonable to conclude that the small man's frontier in the United States of the 1860s had a good deal to do with the late entry of the state into the sphere of labor relations and the postponement until the 1930s of an American trade-union movement at all comparable in proportionate numbers and influence with trade-unionism in Australia. The situation in Australia was not like that of the United States where it was characterized thus:

> These opportunities were to be found in the American West, certainly throughout the whole of the nineteenth century and, in considerable measure, up to the end of the World War. But by 1920 an era was over: and then unsuccessful small farmers or their sons and sons-in-law had not two choices before them but only one. This was movement into the factories. The industrialization (or proletarianization) of our marginal farmers and of our surplus rural population was delayed, therefore, for at least two generations.[10]

The Australian masses were "proletarianized," though not in factories, much earlier. As early as the 1860s, public policy, or the failure of public policy, limited the opportunities of most Australians to wage labor. It is beside the point that their strong workers' organizations, bred of discontent and resentment and operating until 1890 in an economy of fast-increasing production for export, were able to achieve from 1860 onward relatively favorable wages and conditions of work. It was as the workingman's paradise that Australia's fame in the late nineteenth century was noised abroad.

Curiously, the American Civil War, which coincided with the establishment by small men of the last frontier in the United States, indirectly contributed much towards affirming the big man's frontier in Australia. This came about through a radical revision of the British textile manufacture which had to be made upon the cessation of raw cotton supplies from the American South as an incident of the war. It was necessary to place a renewed and compensating emphasis on the woolens branch of the textile manufacture. Since the 1840s Australia had been the principal supplier of raw material for this manufacture, and in the new favorable situation during 1861–65 the export of Australian wool rose 71 percent above the export of the previous four years. This position created an additional reason for British investors' support of the large wool growers on the Australian frontiers and no doubt helped to defeat the ostensible purpose of the land selection legislation.

It was not, however, the squatter pioneers of the great Australian wool production who obtained in the long run most of the new freehold which had been intended for farmers. Even by 1890, the 100 million sheep on Australian pastures were no longer for the most part the property of the McCaugheys, Fairbairns, Coxes, Macarthurs, and similar pastoral families but of banks and agency companies. The Australian land legislation of the sixties had, indeed, two lasting consequences of importance. It failed to achieve homesteads for little men on farms, and it helped the transfer of squatters' homesteads, the Australian equivalent of the ranch, from producer control to financier control. The process of transfer began very soon after the selection acts which it had been hoped would unlock the lands to industrious settlers. In 1865 the run list of pastoral holdings in New South Wales included only 55 runs held by banking and other corporations out of 3,585 listed. Seven years later one bank held 66 runs, another 64, another 77, and three more held 104 runs between them; and land and stock mortgage companies had already a strong footing on the pastures. Corporation control of the Australian pastures, leasehold and freehold, was the chief result of the legislation which had been designed to make arable pastures available to small farmers.

[10]Louis M. Hacker, *The Triumph of American Capitalism*, 10 (New York, 1940).

THE INFLUENCE OF NATURAL RIGHTS AND PHYSIOCRATIC DOCTRINES ON AMERICAN AGRARIAN THOUGHT DURING THE REVOLUTIONARY PERIOD

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The aim of this essay is to show how the rationalism of the eighteenth century and the spirit of the Enlightenment generally influenced agrarian thinking during the revolutionary period in America. The discussion is confined to those writers who applied the natural rights philosophy to problems of land tenure. Arising out of the agrarian philosophy were certain opinions about the nature and structure of government, and these also deserve mention. In addition, the influence of the Physiocrats on American agrarian thought is considered.[1]

For the present purpose, agrarianism may be viewed, on the basis of the evidence presented below, as an ideological complex consisting of three concepts. First, if the institution of private property is to exist in society, every man has a natural right to hold some land. Second, agriculture is the mother of organized society, for recognition of private property is necessary only when men begin to practice agriculture. Systematic tillage without private property is impossible. Thus, in order to protect the individual's investment in private property, made in terms of agricultural labors, the state was created. Finally, American writers agree that agriculture must be the primary concern of the state. It is at this point that physiocratic and natural rights doctrines join company in the New World.

These three concepts, singly or as a unit, were put to a number of uses by the writers of the time. Radical agrarians declared their natural rights to the land in their fight against New Jersey landlordism; Jeffersonian pamphleteers utilized all three concepts in opposing Hamilton's economic and political policies; Hugh Henry Brackenridge invoked the natural rights creed when, in the interest of the frontier farmers, he argued for the dispossession of the Indians. Although the immediate ends for which the arguments were used were diverse, all the agrarians had in common one ultimate goal. They were trying to justify the claim that society owed a freehold to every man who wanted it.

In this contention they were aided by the dominant influences of the period; and it is equally true that these influences shaped their thinking. The years from 1765 to 1800 were a time of crisis, marked by two great struggles in America—the revolt against England and the struggle for political power between the forces of Hamilton and Jefferson. Natural rights theory, an important constituent of revolutionary thinking, spread throughout the land. Politicians, preachers, and country editors all broadcast the new-found truths that were to play such a decisive role in the making of a new nation.[2] Likewise, the place of the farmer in the post-revolutionary society was a serious consideration to the leaders of Federalists and Jeffersonian Republicans alike. Discussion of the matter, under the watchful eye of an electorate that would bestow power on the group it favored, forced men to clarify their views on agrarianism. They had to declare themselves on many questions.

[1] By revolutionary period, I mean roughly the last thirty-five years of the eighteenth century. In his preface to *A History of American Literature* (New York, 1879), Moses Coit Tyler pointed out that the year 1765 marks the end of America's colonialism and the beginning of its nationalism. The broad use of natural rights doctrines in a political context and the consequent rise of revolutionary thinking and Americanism date from about this time.

The present essay by no means covers the entire range of agrarian thought in the late eighteenth century. Among the topics excluded are the institutional basis for taking the land, the literary expressions of the significance of freehold tenure for the individual (what Crèvecoeur called the "bright idea of property"), and the numerous descriptions of the abundance and security of farm life in America.

[2] See Harry J. Carman, *Social and Economic History of the United States* (Boston, 1930), 1:167–168; Benjamin F. Wright, Jr., *American Interpretations of Natural Law* (Cambridge, Mass., 1931), 329; and Philip Davidson, *Propaganda and the American Revolution, 1763–1783* (Chapel Hill, 1941), 44–46.

How can we guarantee the political and economic independence of the farmer? Is the Constitution favorable or unfavorable to the well-being of the farmer? Do Hamilton's fiscal policies help or hinder the farmer? In seeking the answers to these questions, among others, the agrarians were enabled to frame a philosophical and political program.[3]

Although it is against this background that agrarianism first came to maturity in the United States, it must be recognized that the basis of agrarian philosophy lay in America's cultural heritage. In brief, the natural rights doctrine, which contributed so much to the American Revolution as well as to agrarianism, was brought from abroad, where men like John Locke and Samuel von Pufendorff and the polemicists of the Cromwellian revolution had been refining and using it. While American agrarians do not declare their indebtedness to these foreigners, the similarity, for instance, between Locke's ideas on natural rights and property and ideas expressed in the United States is so apparent as to suggest that the Americans were borrowing freely. A quick survey of Locke's position on the relevant problems may serve, then, as a helpful introduction to agrarian thought in the United States.

It is not difficult to see why Locke might have been popular in America. His conception of the origin of organized society and his version of the relationship between private property and agriculture—all based upon and derived from assumptions concerning natural rights—reflected the desiderata of agrarian American society. The highest good for most eighteenth-century Americans was property in land, and Locke assured men that it was their natural right to have and to hold such property. Freeholders were pleased, and freeholding was strengthened in the knowledge that the state came into being primarily to protect the rights of individual men to hold private property in land.

In "An Essay Concerning the True Original, Extent and End of Civil Government," Locke began his discussion of property with a quotation from Psalm 115: God "has given the earth to the children of men."[4] This suggests, of course, that everything produced on the earth belongs to men in common. How, then, can private property come into existence? Locke's answer is simple: private property results from individual labor.

> Though the Earth, and all inferior Creatures be common to all Men, yet every Man has a *Property* in his own *Person*. This no Body has any Right to but himself. The *Labour* of his Body, and the *Work* of his Hands, we may say, are properly his. Whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his Labour with it, and joined to it something that is his own, and thereby makes it his Property. It being by him removed from the common state Nature placed it in, it hath by this labour something annexed to it, that excludes the common right of other Men. For this *labour* being the unquestionable Property of the Labourer, no Man but he can have a right to what that is once joined to, at least where there is enough, and as good left in common for others.[5]

Locke here made labor the key to security. Farmers who occupy and improve the land thereby have a natural right to it; the legalisms of ownership are brushed aside by the reality. "As much Land as a Man Tills, Plants, Improves, Cultivates, and can use the Product of; so much is his Property." Occupancy and use are Locke's criteria for ownership. Further, the English philosopher insisted that men must not have more

[3] I do not mean to suggest that I shall give the agrarians' answers to the questions raised above. My purpose is simply to outline very briefly the kind of pressures that molded agrarian thought. For example, the agrarian element, represented by Richard Henry Lee, opposed ratification of the Constitution because, for one thing, it had been framed by "aristocrats." Lee's contention is borne out by the studies of Charles A. Beard. See *An Economic Interpretation of the Constitution of the United States* (New York, 1913), 39, 43–44, 50–51, 61, 149, 216, and *Economic Origins of Jeffersonian Democracy* (New York, 1915), 73–74, where he shows that small farmers generally opposed the Constitution and became Republicans. Carman, *Social and Economic History of the United States*, 1:360–361, reinforces the point. Other scholars have shown that farmers held political power under the Articles of Confederation and, being relatively prosperous, were reluctant to change over to the Constitution. See E. Wilder Spaulding, *New York in the Critical Period, 1783–1789* (New York, 1932), 23–24; Joseph Schafer, *The Social History of American Agriculture* (New York, 1936), 223; and Merrill Jensen, *The Articles of Confederation* (Madison, 1940), 12.

[4] The Puritans, incidentally, justified their position in dispossessing the Indians by reference to this *Psalm* and also to *Genesis*, 1:28, where men are commanded to "Be fruitful, and multiply, and replenish the earth, and subdue it."

[5] John Locke, *Two Treatises of Government* (London, 1690), 245–246.

land than they are able to till so that any land a man claimed was forfeit if not used properly.[6] This distribution of common property, based upon ability to use it, brought into existence the state, created to protect private property. "The great and chief end therefore, of Men's uniting into Commonwealths, and putting themselves under Government, is the preservation of their Property."[7]

Although eighteenth-century political philosophers in Europe did not have as much to offer Americans as Locke, editors of American periodicals were not slow to recognize and reprint the works of foreigners whose ideas had a special significance for American society. There were not many such contributions, if one excepts the physiocratic writings, but there were two at least that deserve mention here. In a sense their mere presence in American periodicals indicates that some editor thought he had hit upon articles of interest to the reading public in the United States.

In July and August 1784, under the uninspired title "On Agriculture," there appeared in *The Gentleman and Lady's Town and Country Magazine* two excerpts from Abbé Guillaume Raynal. The revised edition of his work had been translated into English by J. O. Justamond and published in London in 1783 under the title of *A Philosophical and Political History of the Settlements and Trade of the Europeans in the East and West Indies.* Raynal's message to the newly federated United States was that agriculture is the basic and most important of man's activities. It is the strength of the state. For these reasons "government owes its protection to its lands rather than to its cities," and to its farmers rather than to any other portion of the population. As if this were not enough to thrill the Jeffersonians, Raynal continued by pointing out that government should encourage free trade or "the multiplication of every species of production, by a free and unlimited circulation." Confident that he had the panacea for society's ills, he concluded his discussion in terms characteristic of agrarian thinking. "This [government's attention to agriculture] will recall the golden age, and streams of milk and honey will enrich and fertilize the luxuriant valley."[8] In the United States this rhetoric could be translated into reality if the government were sympathetic to agricultural interests. Raynal was a prophet with honor in a land of farmers.

In the anonymous "Reflections on Agriculture," a reprint from the English *Universal Magazine*, the idea that agriculture is "the chief and real opulence of a state" is reiterated. This article, which appeared in the *Massachusetts Magazine*,[9] was obviously derived from Locke. It differs from the Raynal passages in that here an attempt is made to demonstrate the historical as well as the contemporary significance of agriculture. After some traditional platitudes in which agriculture is eulogized, the basic proposition of these "Reflections" is revealed in the statement that the practice of agriculture caused the formation of organized society on the one hand and established the conception of private property on the other. As in Locke, the argument begins with the gift of the earth to man by God. Mankind held the earth in common; private property was unknown. But as men "increased in number, craft, and ambition," the institution of private property became necessary to the peace and order of society. This resulted in private ownership of movables. When the uncertainty of hunting made the procurement of food a precarious adventure, the need to find "some regular method of providing a constant subsistence" encouraged the art of agriculture. Thus necessity begat property, and property made agriculture secure. Unlike Locke, this author did not emphasize the part of individual labor in the creation of private property. But the relationship between property in land, the formation of society, and the practice of agriculture is clearly established on Lockeian assumptions; the author believed in the benevolent state of nature. However, another difference, and a significant one, between the "Reflections" and Locke is the omission in the former of any direct reference to the natural right of every individual to private property in land. Such a right is only partially implied in the idea that originally all men held the earth in common. The fundamental position of agriculture in society is demonstrated conclusively.

Of all the Americans who adapted these conceptions of natural philosophy to American agricultural society, George Logan was the most effective. His *Letters Addressed to the Yeomanry of the United States*, published at Philadelphia in

[6] *Ibid.*, 250–258.

[7] *Ibid.*, 346.

[8] *Gentleman and Lady's Town and Country Magazine* (Boston), 1:101–103, 157–159 (July, August 1784).

[9] *Massachusetts Magazine* (Boston), 1:357–361, 411–414 (July 1789).

1791, is a masterly blending of political philosophy with specific partisan argument. In this pamphlet Logan's chief purpose was to attack the Hamiltonian policy of funding and protection by showing it to be antithetical to the best interests of an agricultural nation. To implement his own Jeffersonian program he called for greater participation by the farmer in politics. The maturity with which Logan handled his complex anthropological and political material, despite the derivative character of the principles with which he dealt, marks his work as deserving of more attention in the annals of American letters than has hitherto been accorded it.

Early in his *Letters* Logan introduced the natural rights doctrine with the statement that the same laws govern both nature and society. God is the source of these laws and government is established to support them. He then linked these natural laws to agriculture in a definition of political economy.

> By *political economy* is to be understood, that natural order appointed by the Creator of the Universe, for the purpose of promoting the happiness of men in united society. This science is supported by the physical order of cultivation, calculated to render the soil the most productive possible; and by the sacred moral principle of doing unto others as we would have others to do unto us—The first is necessary to the maintenance and existence of civil society—the last, equally necessary to ensure its prosperity.[10]

Organized society, then, is inspired by the practice of agriculture and dependent upon it. Logan made the point more explicitly when he said:

> But whenever the population of a country becomes so great as to render the cultivation of the soil necessary for the support of its inhabitants, then a firm, established government becomes equally necessary to support each individual citizen in the right of soil, and the advantages and profits arising from his labor.[11]

In the establishment of government Logan never lost sight of the individual, for, indeed, the government is designed to guarantee the rights of individual men. This is why agriculture was so important in his thinking, for it gives every man a stake in society.

[10] George Logan, *Letters Addressed to the Yeomanry of the United States* (Philadelphia, 1791), 11.

[11] *Ibid.*, 5.

If agriculture is the basis and reason for the existence of government, then the power of the government must protect the farmer's interests. The fundamental interest of the farmer is in his property. Government must take responsibility for the integrity of private property if agriculture is to flourish. These conclusions led Logan logically to a discussion of the nature of property. He began with the assumption that the first object of society is to secure the happiness of every citizen. This can best be done by assuring full liberty of person to each individual; Logan called such liberty the property of persons. There is also the property of movable goods and the property of the soil, "rendered productive by labor." The individual's right to these last two kinds of property arises from the labor bestowed upon them. Property is the product and reward of individual industry.[12]

Clearly, here is the complete Locke in the garb of a Philadelphia agrarian.[13] No other country in the world, in 1791, could have offered such a hospitable reception to seventeenth-century

[12] *Ibid.*, 12, 27–28, 40–41.

[13] Joseph Dorfman, *The Economic Mind in American Civilization, 1606–1865* (New York, 1946), 1:295, observes that Logan was influenced by Adam Smith and the Physiocrats, and calls him the "physiocratic spokesman for commerce" although "his philosophy and economics were more native than French. . . ." Of Logan's physiocratic leanings I shall have something to say below. Dorfman's discussion of Logan as a champion of commerce, however, is not entirely convincing. Almost always, even in the quotations and summaries included by Dorfman, the point of reference in Logan's work is the farmer and not the merchant or the manufacturer. And certainly, in the light of the similarity of his thought to Locke's, one cannot ignore the influence of the English philosopher in a discussion of the forces shaping Logan's views. What this demonstrates, I think, is that Logan drew from many different sources, both English and French. In general it may be said that the Jeffersonians did not depend as exclusively upon French thought as Vernon Louis Parrington claimed. Richard Hofstadter has shown, in "Parrington and the Jeffersonian Tradition," *Journal of the History of Ideas*, 2:391–400 (October 1941), that Jefferson's economic thought was eclectic, and that like Logan, Jefferson also made use of Adam Smith. In all fairness, it must be pointed out that Parrington did recognize the attraction of "English middle-class philosophy" to both agrarian and capitalistic groups at least before the 1790s. See his *Main Currents of American Thought* (New York, 1927), 1:273.

liberalism. Logan perceived that in America the natural rights philosophy was a living thing. A democratic agrarian society responded to principles that sanctioned everyone's right to possess the land; this was the essence of equality for men in a country where over 90 percent of the people got their living from the soil. The appeal to liberty, the conception of the state as a purely negative restraining organization, the emphasis on individual happiness through individual ownership of the land—all these features in Logan's version of natural philosophy were attuned to the democratic spirit. Such a society was in full agreement that labor should be the key to possession. This had been the argument in seventeenth-century America when the Indians were driven from the lands. Since then, squatters had held that possession and improvement of the land were tantamount to ownership. Further, the concept of work for its own sake had been so important in the Puritan ethic that the mere idea was sanctified. Americans were quite willing to recognize labor as the legitimate source of property, and thus of material well-being and security.

The kinship between Logan's theory and the American way of life made it easy for his countrymen to accept the Lockeian bias of his argument. But Logan emphasized the correspondence between these abstract ideas and native society by basing a practical program for political action on this ideational foundation. If agriculture is the basis of the state, and its primary concern, then the laws of the state should further the interests of the farmer. Logan tried to make the American farmer see this in economic terms. In addition to telling him that "the prosperity and the happiness of a country is in a direct ratio to the cultivation of the earth,"[14] Logan appealed to him as the saviour of the Nation; for the farmer, in the interest of the public welfare, must see to it that free trade is established in the United States. It follows quite logically that high prices for produce are in the general interest if agriculture is the fulcrum of the national economy. Without free trade high prices cannot prevail. But Logan did not stop here in his application of the natural rights dogma to contemporary issues. Free trade, he continued, is a natural right. Men submitted to the authority of government in the beginning only because it secured to them the use of their property; it preserved the rights of all men. "These rights . . . consist in every citizen enjoying the greatest possible advantage from the use of his faculties and property, which includes an unlimited pursuit in every kind of work, and a free exchange of his property."[15] Once the central position of agriculture in the state is granted, the Jeffersonian program became inevitable.

It is apparent that the quality of Logan's thinking is distinctly agrarian. His anthropology, in which he traced the evolution of society through the hunting, pasturing, and agricultural stages, is designed primarily to illustrate the origin of private property. And it is private property in land that is the basis of agrarianism. When this view of property is combined with an ardent belief in the natural right of every individual to hold a piece of land, one is convinced of the agrarian animus in his work. It is perhaps supererogatory to add that public credit, tariffs, and indirect taxes were regarded by Logan as direct threats to freeholders. These Hamiltonian policies did not further the interests of the great agrarian majority. Logan was heartily on the side of this majority, and his chief concern was to establish its historical and social importance and to give it a political program.

No other native exponent of natural philosophy covered the subject as completely as Logan. His *Letters* constituted the *summa* of agrarian thought; he discussed the natural right of men to land, the importance of agriculture in the formation of society, and the central position of agriculture in the state. In brief, he synthesized the cardinal tenets of the agrarian ideology. All other expositions of these concepts were fragmentary. But there were others, men who had read Locke, perhaps, or who independently drew from American society observations that appear to be echoes of his essays on government. Their work indicates that Logan was not a sport, and that natural rights were commonly linked with the land and agriculture.

The New Jersey land riots produced the earliest example of such a conjunction of ideas. On June 9, 1746, an anonymous article appeared in the *New York Weekly Post Boy*.[16] Making a fine distinction, the contributor remarked that what he had to say did not concern the law, but it did concern equity and reason, which are superior to the

[14] Logan, *Letters*, 6.

[15] *Ibid.*, 40. See also 6, 8, 14, 17–18.

[16] Reprinted in *Documents Relating to the Colonial History of the State of New Jersey*, ser. 1, 12:308–309 (Paterson, N. J., 1895).

law. Thus, at the outset, he indicated his bias, for reason and nature were interchangeable terms in the language of natural philosophy. Without so much as a nod of acknowledgment toward Locke, this writer condensed the entire natural rights position on property in his defense of the harassed Jersey farmers whose several landlords were alternating in claiming the lands the farmers occupied. Some actually believed that they had purchased the farms they occupied; others were squatters. To protect the former and to justify their position, the writer resorted to the authority of the liberal tradition.

> No Man is naturally intitled to a greater Proportion of the Earth, than another; but tho' it was made for the equal Use of all, it may nevertheless be appropriated by every Individual. This is done by the Improvement of any Part of it lying vacant, which is thereupon distinguished from the great common of Nature, and made the Property of that Man, who bestowed his Labour on it; from whom it cannot afterwards be taken, without breaking thro' the Rules of natural Justice; for thereby he would be actually deprived of the Fruits of his Industry.

There was as little reason to buy the land from "a few Particulars" to whom the king had originally granted it as there was "of buying the Waters of the Rivers." Here is the voice of radical agrarianism speaking in the interest of the small farmer. The inordinate desire to possess the land dictated the adoption of a justification based upon natural rights. This, in turn, made it easy, in the name of "natural Justice," to transcend binding man-made laws. Freehold tenure in America resulted not only from an abundance of land but also from a fierce will to use any means to justify getting the land.

As philosophical doctrine lent a certain weight to demands for land in the case of the Jersey farmers, so did it aid Hugh Henry Brackenridge when he argued that the dispossession of the Indians in favor of the frontier farmers would benefit society because the farmer would till the soil. Brackenridge's task was complicated, however, because the peace-loving Quakers in Philadelphia, who largely controlled Pennsylvania government, befriended the Indians. The Quakers were reluctant to see frontiersmen in possession of the land because ownership meant political power. Such power, of course, would threaten their own political omnipotence.[17]

[17] See George Arthur Cribbs, *The Frontier Policy of Pennsylvania* (Pittsburgh, 1919), 41–46.

In 1792 Brackenridge entered a plea in behalf of the beleaguered white settlers on the Pennsylvania frontier. They were in need of protection from ravaging Indians. Replying to the charge that the whites were trespassing on territory to which the Indians had a natural right, the Pittsburgh lawyer wrote:

> It is a right of which I have never thought with much respect. It is like the claim of the children; it is mine, for I first saw it. . . . I consider the earth as given to man in common, and each should use his share, so as not to exclude others, and should be restricted to that mode of using it, which is most favourable to the support of the greatest numbers, and consequently productive of the greatest sum of happiness; that is the cultivation of the soil. I pay little regard, therefore, to any right which is not founded in agricultural occupancy.[18]

Here it is obvious that Brackenridge believed in a democratic distribution of the land but only to those who have passed beyond the nomadic state. The greatest happiness for all can be achieved only in a society organized after the white man's pattern. The argument appears to be in the interest of benevolence and progress, and Brackenridge was no doubt sincere. Later in the same article he said:

> There must be some fixed principles on which all right depends. Under the great law of nature, it is a right to as much as is necessary for our subsistence. By pasturage or hunting? No; by agriculture. Because in this way of life most can subsist at the same time.[19]

With the frontiersman's abiding distrust of the Indian it never occurred to Brackenridge that real democracy and justice demanded some provision for the Indian. But in this oversight he was not alone.

Through the last fifteen years of the eighteenth century, Brackenridge waged war on several fronts in the interests of those pioneers who had gone to the farthermost borders of Pennsylvania. Always he called upon the natural rights theory to bolster his demands for land for frontier farmers. Whether he was arguing for the dispossession of the Indians or for the rights of Americans on the Spanish-controlled Mississippi, he consistently based his thinking on the law of reason which guaranteed that "every man shall have a right to so much of the earth as is necessary for his own

[18] *Gazette Publications* (Carlisle, Pa., 1806), 94.
[19] *Ibid.*, 102–103.

subsistence," as he said in a speech to the State legislature in 1788 on the Mississippi navigation problem.[20] He was the champion of a youthful and energetic people whose imperialistic designs were in need of a rationalization. He provided such a rationalization, not because he necessarily believed in imperialism, but because he believed in agrarian democracy. At the base of an equalitarian and free government there must be an economically secure electorate. Possession of the land assured the happiness of the individual and thereby fostered the well-being of the state.

Brackenridge was a middle-of-the-road democrat. He would have been outraged and confused to find that his ideological position could be used to threaten the conception of private property as well as to implement it. Yet he agreed in all essentials with the radical contributor to the *New York Post Boy* whose main purpose was to divorce the so-called legal owners from their lands. Both, however, saw the natural rights idea as an evolutionary process, insofar as property is concerned; both thought that at this late stage in man's social development private property was an accepted fact, no matter what means were utilized to bring the land under individual control. But an unorthodox thinker like Tom Paine refused to surrender the primary assumption of this doctrine or to believe in the evolutionary growth of society. He maintained that if men held the earth in common in the beginning, then they should hold it in common now and always.

> It is a position not to be controverted that the earth in its natural, uncultivated state was, and ever would have continued to be, *the common property of the human race.* In that state every man would have been born to property. He would have been a joint life proprietor with the rest in the property of the soil, and in all its natural productions, vegetable and animal.[21]

In order to restore this pristine equality, Paine devised a plan whereby those who inherited property paid one-tenth of the value of their inheritance to the state. The state, in turn, distributed sums of money to the infirm and to those citizens reaching their majority who had no land. Actually, the scheme is a substitute for redistribution of the land, the state funds making it possible for those who own no land to purchase their rightful share. In this fashion, ultimately, everyone would come to hold a piece of land. Paine's primary concern was that all should share in the great gift that had originally been given to men. There were no strings attached to ownership of land in his plan. The mere fact of living made one eligible; it was not necessary to work on the land and improve it to qualify as the owner. Two features, then, make Paine's position different from any other writer on natural rights and the land. His plan embodied the most sweeping kind of equalitarianism, based probably on the faith that the individual, if given the opportunity, would put the soil to constructive social use; and his plan swept away the restraints exercised upon property by its deceased owners. That is, by imposing a burden on inheritance he was seeking to whittle down the size of estates, to decrease the disproportionate prestige of a favored few who owned large parcels of land, and especially to place the land at the disposal of the living.[22]

Recognition of the supreme importance of agriculture in America animated those who attempted to establish the right of each man to a piece of land. Searching out the basis for this right was the most challenging task agrarian thinkers faced in the eighteenth century, for it meant dealing with philosophical abstraction as well as with practical political problems. Some of these writers found support in the doctrines of the Physiocrats. But there were many, on the other hand, who were content merely to glorify agriculture. Since Hesiod, in unbroken succession, men had played upon this theme; agriculture was the basis of the arts, the parent of the sciences, and the oldest and most dignified employment of man.[23] American writers willingly partook of this

[20] *Ibid.*, 45.

[21] "Agrarian Justice," *The Life and Works of Thomas Paine*, ed. by William M. Van der Weyde (New Rochelle, N. Y., 1925), 10:11.

[22] In this connection Paine was in full agreement with Jefferson. Writing to Madison in 1789, Jefferson developed the idea that "the *earth belongs in usufruct to the living;* that the dead have neither power nor rights over it." *The Writings of Thomas Jefferson*, ed. by Albert Ellery Bergh (Washington, 1903), 7:454–456. There is no indication that the master of Monticello drew his argument here from the natural rights theory. But the implications of his position brought him to the same conclusion as those who adhered to this doctrine. Every man must have his share of the land. Legislative acts to abolish entail and primogeniture were written by Jefferson to implement a democratic policy for distributing the land.

[23] See Paul H. Johnstone, "In Praise of Husbandry," *Agricultural History*, 11:80–95 (April 1937), where this tradition is analyzed and traced from the ancients

tradition, partly, one suspects, in a spirit of self-adulation.[24] They were proud to belong to an agricultural nation if agriculture could be made out as the seed of all civilization. But even here there is some evidence that the traditional platitudes were affected by the new *Weltanschauung*.

Robert R. Livingston, for example, quite incongruously mingled contemporary anthropology with the old commonplaces when he wrote in a paean to agriculture that it united "men in civil society, who, without its aid, would have continued to be wandering savages, but little advanced in improvement beyond the beasts of the forest, that afford them a miserable and scanty subsistence."[25]

In a eulogy to his native Connecticut, David Humphreys drew upon the contract theory of government and the theme of agricultural virtue which antedated it:

> Hail, model of free states! too little known,
> Too lightly priz'd for *rural arts* alone:
> Yet hence from savage, social life began,
> Compacts were fram'd and man grew mild to man.
> Thee, Agriculture! source of every joy,
> Domestic sweets and bliss without alloy.[26]

John Morgan, laboring with the age-old idea that agriculture induces bodily health, vigor, and innocence, put his real faith in the argument that it is the "first law of nature" and a matter of self-interest to give primary attention to agriculture in an infant state.[27]

The genealogy of ideas was blurred in these men, but they cared little for the sources of their ideas as long as the importance of agriculture could be emphasized. This emphasis led those intellectuals who were susceptible to new conceptions to the physiocratic doctrine. For if Morgan were right in his oft iterated argument that agriculture was absolutely necessary in newly settled countries, there could be no more appropriate ideational scheme for the United States than that propounded in France by François Quesnay, Pierre S. Du Pont de Nemours, and Pierre-Paul Mercier de la Rivière.

Yet the Physiocrats did not take the United States by storm. At least two of their basic ideas were repugnant to Americans. Unlike the natural rights theory, then, the doctrine of the French economists did not filter through to the various class levels. Even among the intellectuals it was not widely accepted. Franklin and Jefferson were its chief advocates, but even they never openly declared unqualified adherence to its tenets. Perhaps the main source of American reserve toward the Physiocrats lay in the principle of the single tax that was central to their doctrine. Such a tax on land was antithetical to American agrarian interests, being completely unacceptable

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through the European literature of the eighteenth century.

[24] America offers many examples of unalloyed eulogy to agriculture. For instance, the *Christian's, Scholar's, and Farmer's Magazine* (Elizabeth Town, N. J.) began its existence with the following editorial bow to the last of the triumvirate in its title: "No employment of life is more respectable, nor more beneficial than Husbandry." See *ibid.*, 1:97–98 (April-May 1789). A farmer from Plymouth, writing in the *Massachusetts Magazine*, 2:409 (July 1790), opened his essay, "On the Importance and Profits of Agriculture," with the conventional statement that agriculture is the source of public and private happiness. The author of "The Farmer on Agriculture" in the *Monthly Miscellany or Vermont Magazine*, August 1794, 228–229, pointed out that agriculture strengthens the mind, increases virtue and piety, and induces a philosophic view. General James Warren made a complete statement of the traditional point of view in Mathew Carey's *American Museum* (Philadelphia), 2:344 (October 1787). "Agriculture has long been a favourite object with me. In a philosophic view, it is great and extensive: in a political view, it is important and perhaps the only firm and stable foundation of greatness. As a profession, it strengthens the mind, without enervating the body. In morals, it tends to increase virtue, without introducing vice. In religion, it naturally inspires piety, devotion, and a dependence on providence, without a tincture of infidelity. It is a rational and agreeable amusement to the man of leisure, and a boundless source of contemplation and activity, to the industrious." In his handbook for husbandmen, *The New-England Farmer* (Worcester, Mass., 1790), 9–10, Samuel Deane epitomized the pattern and emphasized particularly his reliance upon the authority of the ancients. His is perhaps the most exhaustive summary of these traditional platitudes; it was reproduced in the *Rural Magazine* (Newark, N. J.), 1:3 (Feb. 17, 1798).

[25] "Address to the Agricultural Society of the State of New York," *Rural Magazine* (Rutland, Vt.), 2:175 (April 1796).

[26] "A Poem on the Industry of the United States of America," *The Miscellaneous Works of David Humphreys* (New York, 1804), 107.

[27] "Whether it be most beneficial . . . to promote agriculture, or to encourage the mechanic arts and manufactures?" *American Museum*, 6:71–72 (July 1789).

to small landowning farmers.[28] Jefferson's version of an ideal tax system, on the other hand, was one in which the wealthy mercantile class would bear the whole burden and the small farmer would be utterly free of any imposts. He stated this position clearly in a letter to Du Pont de Nemours, after having suggested that the single tax on land was not for America.[29] The second article of the physiocratic faith to which Americans took exception was the idea that the owners of the land own and, therefore, must rule the nation. Gilbert Chinard has noted the conflict between this concept and Jefferson's trust in the contractual conception of society.[30] Jefferson himself repudiated the physiocratic position by writing, again to Du Pont de Nemours, that the source of governmental power here lies in "the mass of individuals composing the society," while, in sharp contrast, "You first set down as zeros all individuals not having lands, which are the greater number in every society of long standing."[31] For Jefferson, democracy came even before agriculture. It was his love of agriculture that inspired his *O altitudo* passages on the sturdy and virtuous husbandman and that brought him into sympathetic contact with the Physiocrats. It was his love of democracy that led him to reject their rigid and particularized system and that drove him to economic eclecticism.

What Americans did accept from the Physiocrats was the idea that, in the words of a nineteenth-century ballad, the farmer supports all.[32] That is, the only source of real wealth and the only productive employment was agriculture. Logan and Dr. Samuel Williams of Vermont indicate agreement, conscious or otherwise, with physiocratic thinking in this respect. Jared Eliot seems to have anticipated the Physiocrats in this doctrine.

With the implicit faith of the time in science, which "manifests the truth of the following axioms," Logan listed several propositions which illustrate the success of the physiocratic invasion.

> 1st. The earth is naturally fruitful.
>
> 2d. The earth is not sufficiently productive for the support of civil society without cultivation.
>
> 3d. The earth is the only source of those things necessary to the existence of men.
>
> 4th. The earth being the only productive fund, the cultivation of the earth is the only productive employ.
>
> 5th. Every other kind of work which has for its object the preparation, alteration, or transport of such productions may be more or less necessary, but they are not productive.[33]

Thus by the authority of science—not of God, it is worth noting—manufacturing and trade were relegated to ancillary rank in the economic structure.

Dr. Samuel Williams came to much the same conclusion even though he did not invoke science.

> The physician, the lawyer, the divine, the statesman, and the philosopher, are engaged in employments of great utility to mankind. But there is not one of them, that adds any thing to the wealth and property of the community: They must all derive their support, from the cultivation of the land. Of all arts and professions then, agriculture ought to be esteemed the most useful, and the most important. It is the art which produceth, and nourishes all the rest. The other arts teach how to preserve the health, the property, and the morals of men; to enlarge their understandings, and to give a right direction to their minds: But this provides food, raiment, and support for them all.[34]

The rocky and barren slopes of his native Vermont do not seem to have jarred the good doctor's even-toned acceptance of the primary importance of agriculture.

Jared Eliot, not directly influenced by the Physiocrats, was certainly thinking in terms similar to theirs when he wrote:

> Natural or real Wealth are such Things as supply the Necessities or Conveniences of Life: These are obtained from the Earth, or the Sea; such as Corn, Flesh, or Fish, Fruits, Food and Raiment.
>
> Husbandry and Navigation are the true Source of natural or real Wealth.[35]

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[28] See, in this connection, Hofstadter, "Parrington and the Jeffersonian Tradition," where it is pointed out that such a policy was appropriate in France where it would rightfully place the burden of taxation on tax-exempt feudal holdings, for the landowners were the moneyed aristocracy.

[29] See *Writings*, 13:38–39.

[30] "Jefferson and the Physiocrats," *University of California Chronicle*, 33:29 (January 1931).

[31] *Writings*, 14:488–489.

[32] "The Farmer Supports All," a ballad by Peter Melendy printed originally in his column in the *Cedar Falls Gazette*, Sept. 26, 1861. Quoted by Luella M. Wright in *Palimpsest*, 18:135–136 (April 1937).

[33] Logan, *Letters*, 15.

[34] "Agriculture," *Massachusetts Magazine*, 6:691 (November 1794).

[35] *Essays upon Field-Husbandry in New-England* (Boston, 1760), 97.

In Franklin the physiocratic doctrine found its completest expression in America. It was not that he went further than the others in his advocacy of the French theory but that he expressed himself more frequently in physiocratic terms. Thus, under the prudent title, "Positions to be Examined, Concerning National Wealth," he listed twelve ideas.[36] The first was that all food comes from the earth or waters. From this basic statement he proceeded to claim that the "Necessaries of life, that are not food . . . have their values estimated by the proportion of food consumed while we are employed in procuring them." After making it clear that men must "labour the earth" in order to get food, he wrote on the fifth and sixth items:

> 5. From this labour arises a *great increase* of vegetable and animal food, and of materials for clothing. . . . The superfluity of these is wealth. With this wealth we pay for the labour employed in building our houses, cities, &c., which are therefore only subsistence thus metamorphosed.
>
> 6. *Manufactures* are only *another shape* into which so much provisions and subsistence are turned. . . .

Franklin closed his list with a magnificently balanced peroration that emphasizes his faith in the physiocratic view of agriculture.

> Finally, there seem to be but three ways for a nation to acquire wealth. The first is by *war*. . . . This is *robbery*. The second by *commerce*, which is generally *cheating*. The third by *agriculture*, the only *honest way*, wherein man receives a real increase of the seed thrown into the ground, in a kind of continual miracle, wrought by the hand of God in his favour, as a reward for his innocent life and his virtuous industry.

Elsewhere Franklin reiterated the same arguments. In one place he wrote: "The Agriculture and Fisheries of the United States are the great Sources of our encreasing Wealth."[37] On another occasion, he said: "Agriculture is truly *productive of new wealth;* manufacturers only change forms . . . . riches are not *increased* by manufacturing. . . ."[38] This close relationship with the physiocratic ideology bore burdensomely upon Franklin. It was quite incompatible with his neo-mercantile position and was definitely hostile to his justification of a system of indirect federal taxation. But Franklin was a landlord.[39] Intellectually inconsistent he may have been, but he never betrayed his character.

Cautious of their acceptance of the Physiocrats, Americans were bold in their assertions of democratic ideals. Democracy was the motivating force behind the adaptation and qualification of physiocratic doctrine, just as it was the rationale for the prevalence of the natural rights theory in the United States. Democracy provided the inner logic that enabled American thinkers to transcend whatever ambiguities resulted from their re-workings of imported theories. They were not interested in the ideas *per se*. They wanted to fix in the minds of their countrymen the primary importance of agriculture; they wanted desperately to establish the right of every individual to a piece of land. For this purpose, they utilized those ideas of Quesnay and Locke that fitted into the social context of eighteenth-century America. The ideas were simply a means to an end; in Logan's case, for example, they were used as an instrument to sever the Federalists from political power. Equalitarian agrarian democracy was the dominant, perhaps the sole, criterion for the acceptance of any idea, so that in essence the ideas themselves became the rationalization for anything contributing to such a democracy. In truth, Brackenridge's position is as good an argument for squatter's rights as it is for the dispossession of the Indians, and to the frontier farmer the right to squat was frequently indistinguishable from the right to vote. You were entitled to both in a democracy.

Yet the agrarian writers had striven to clarify the evolution and indispensability of private property in organized society. There is no contradiction here. Common property became private when an individual bestowed his labor upon it, and not when the king granted it to one of his

[36] *The Writings of Benjamin Franklin*, ed. by Albert Henry Smyth (New York, 1906), 5:200–202.

[37] "The Internal State of America," *ibid.*, 10:122.

[38] Letter to Cadwallader Evans, *ibid.*, 5:102. See also a letter to Lord Kames, *ibid.*, 5:195; and one to Benjamin Vaughan, *ibid.*, 9:246.

[39] I am indebted here to Earle D. Ross, "Benjamin Franklin as an Eighteenth Century Agricultural Leader," *Journal of Political Economy*, 37:52–72 (February 1929). For a discussion of Franklin as an owner of farm land, see Carl R. Woodward, "Benjamin Franklin: Adventures in Agriculture," in the Franklin Institute publication, *Meet Dr. Franklin* (Philadelphia, 1943), 179–189. Here Woodward demonstrates that Franklin did not own the experimental farm in New Jersey so long attributed to him. He did, however, acquire a farm in Chester County, Pennsylvania.

favorites, or when a surveyor marked off the boundaries of an estate. If labor were essential in the creation of private property then the squatter did have the right to land lying, to all intents and purposes, vacant and unused. Indeed, this right was buttressed by the functional view of the land held by Lockeian theorists. The land was for use, and whoever used it for agriculture owned it. This idea was common to the Puritans and to the eighteenth-century thinkers, and it illustrates how the same goals may be achieved through thoroughly divergent means. The Puritan was a squatter too. He sought his justification in divine law, while his descendant on the frontier found sanction and protection in natural law. Thus the ideological swing in America from supernaturalism to naturalism, a change that affected all fields of human activity, is demonstrated and confirmed in the narrow sphere of agricultural economics.

LAMARE-PICQUOT AND THE BREADROOT

MARJORIE F. WARNER

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We hear much about the successful results of botanical exploration but seldom realize that plant introduction counts many failures. A hundred years ago a French traveler named Lamare-Picquot tried to introduce the breadroot used by some of the American Indians into his homeland. Although his hopes were not realized, there is still some interest for us in the story of his undertaking and the causes of its failure.

There was a vivid incident of my mother's early childhood which she never forgot. She had darted into the sitting room of the mission house at Lac qui Parle, Minnesota, to find a stranger talking excitedly to her father, the Reverend Stephen Return Riggs.[1] The visitor was not an Indian, for she was used to Indian callers and did not notice them particularly, but his speech was strange, and while she could not understand his language, his tone, look, and gestures all showed anger as he exhibited something in a small percussion cap box. After she was older, her father used to tell of the Frenchman who had come in search of the plant the Indians called *tipsina*, which he hoped to introduce in France. He was bitterly disappointed because the Indians had brought him so few seeds and suspected them of trying to deceive him and balk his purpose.

From my own childhood I knew the strings of white peeled tubers of the *tipsina*, sometimes called the prairie potato but more commonly breadroot (*Psoralea esculenta*, Pursh). Its flavor was delicious, and although the dried roots were almost impossible to chew, I had been told they were tender and sweet when freshly dug, and my mother always wondered why no attempts had been made to develop the plant as a food.

The early episode was recalled by the biography of John P. Williamson,[2] another missionary to the Indians and a childhood friend of my mother. This book mentioned a French naturalist who had been in Minnesota when Williamson was a boy and who had enlisted his help in collecting animals and plants. The Frenchman's name was here spelled "Le Marcipeau," whereas that of the *tipsina* hunter had sounded to my mother like "La Marpiko." But who was this Frenchman, and what had become of his plans to introduce the plant into France?

Eventually the name Lamare-Picquot was discovered in a publication of the Paris Museum of Natural History, and it was found that he had traveled extensively in North America in the

[1] Riggs (1812–1883) was a missionary among the Sioux Indians. His Dakota-English Dictionary and his Dakota Grammar were published in the *Contributions to North American Ethnology* (v. 7, 1890, v. 9, 1893). He translated a large part of the Bible into Dakota and was the author and editor of educational and literary works in that language.

[2] Mrs. Winifred (Williamson) Barton, *John P. Williamson, a Brother to the Sioux*, 20 (New York, 1910).

1840s. In 1847 he had taken back to France seeds and roots of *Psoralea esculenta* as a promising food plant, and in the next few years a number of articles on its acclimatization were published in French agricultural and scientific journals. Several of these, by Lamare-Picquot and others, notably Charles Gaudichaud, deal with the expeditions in search of the plant and its introduction in France, where it received the vernacular name *Picquotiane* in honor of the explorer though it was more often called *artorize* or breadroot in accounts of experiments.[3]

The circumstances of the plant's introduction into France were remarkable. Lamare-Picquot had been traveling in Canada, along the Great Lakes and the Saint Lawrence River and in Labrador, and on his return to Quebec on November 1, 1845, when about to embark for France, he heard that the potato crop was hopelessly ravaged by disease not only in France but throughout Europe. Recollecting what he had heard from the Canadian voyageurs of certain plants used as food by the Plains Indians, he made a hard winter journey to the regions between the upper Mississippi and the Missouri rivers, and in the summer of 1846 he camped with the wandering Indians who were collecting the edible roots of the *tipsina*. He obtained a number of specimens, which he took back to Paris in March 1847. Chemical analyses were made of the roots and experiments started in growing the plant. On the strength of these Lamare-Picquot was authorized by the French Ministry of Agriculture to return to North America to procure seeds and living plants of *Psoralea esculenta* in quantity and to learn everything possible about the soils and climate favorable to its growth, as well as the ways in which it was used and preserved by the Indians. He was also directed to get seeds and plants of other species reported used by Indian tribes, such as *Apios tuberosa*, *Lewisia rediviva*, and *Phalangium quamash* or *Scilla esculenta*.[4]

Lamare-Picquot's first journey had been hard but not especially perilous, but on his second the fates seemed against him. Leaving Paris on May 22, 1848, he reached New York on June 24 and crossed the country to Galena on the Mississippi River where he outfitted for his expedition. When he had gone up the Mississippi as far as Mendota, he found that hostilities had broken out between the Sioux and Chippewas in the very region where he was planning to explore, so he changed his course and pushed on to the prairies in latitude 43° 53′ and longitude 95° 28′ west from Paris where he hoped to find Psoralea in abundance. But on reaching his special destination at the end of July 1848, he found that, as a result of unfavorable weather, the plants of Psoralea in that locality had failed to mature seed, so he moved on westward to other grounds.[5]

The Frenchman reached Lac qui Parle on August 6, 1848, only to find the plants in that region were also barren, and it must have been at this climax in his misfortunes when he called on my grandfather, Dr. Riggs, presumably to see whether the latter's extensive knowledge of the Indians and

[3] Charles Gaudichaud, "Rapport sur un mémoire de M. Lamare-Picquot, relatif à une nouvelle plante alimentaire qu'il a recueillie dans l'Amérique septentrionale, et qu'il designe sous le nom de Picquotiane," Académie des Sciences, *Comptes rendus hebdomadaires des séances* (Paris), 26:326–333 (1848), "Rapport sur un mémoire de M. Lamare-Picquot, relatif aux résultats scientifiques de son dernier voyage dans l'Amérique septentrionale, et à l'introduction en France de deux plantes alimentaires: le *Psoralea esculenta* et l'*Apios tuberosa*," *ibid.*, 28:708–729 (1849), and "Notes sur l'*Apios tuberosa* et sur le *Psoralea esculenta*," *ibid.*, 31:393–401 (1850); Lamare-Picquot, "Mémoire sur l'introduction en France d'une plante farineuse nouvelle de l'Amérique septentrionale, pouvant être substituée à la pomme de terre, et remplacer, dans la fabrication du pain, la farine de froment," *ibid.*, 25:446–447 (1847), and "Résumé des faits présentés et opinions émises dans mon mémoire sur la Picquotiane lu à l'Académie des sciences, dans sa séance du 27 septembre 1847," Société centrale d'horticulture de France, *Annales*, 40:83–86 (1849); Isidore Lebrun, "De la Picquotiane (*Psoralea esculenta*)," *Annales de l'agriculture française* (ser. 4), 19:187–189 (1849); [Anselme Payen], "Analyses des tubercules (*Psoralea esculenta*) rapportés d'Amérique par M. Lamare-Piquot [*sic*]," *ibid.* (ser. 4), 17:169–170 (1848).

[4] Nomenclature of Gaudichaud.

[5] Lamare-Picquot's itineraries cannot be traced unless they could be checked by dates and localities of his collections. Mrs. Barton, in her *John P. Williamson*, implied that he spent considerable time at Lac qui Parle when her father was "about five years old." As the latter was born in October 1835, this might have been in 1841, the year of Lamare-Picquot's first travels in America, but there is no other evidence that he was in that region so early. In 1846 he explored a vast territory between the upper Mississippi and the Missouri and certainly ranged as far south as Iowa. It seems probable that he made his first visit to Lac qui Parle in 1846.

their language might persuade them to bring in a larger quantity of seeds. They are, however, difficult to harvest even when abundant. As soon as the seeds are ripe, the plants die down and become brittle and are blown about the prairie by the winds. So it doubtless took some diligence to get even the small box of seeds that excited my mother's childish curiosity.

Leaving Lac qui Parle on August 11, Lamare-Picquot returned to the plains farther eastward to obtain living plants of various species. On October 3, he reached New York, after 71 days of rapid and fatiguing travel, and on November 22 he landed at Le Havre with all his living plants in good condition. His collections from this trip included some kilograms of dried roots of Psoralea and about 350 seeds of this plant, together with fruits, seeds, and roots of other edible vegetables found in the regions he had traversed. He also took back specimens of soils, rocks, and minerals, and careful meteorological observations from the habitat of the *tipsina*.

However, Lamare-Picquot's hopes for the plant were not realized. A prize of 10,000 francs had been offered for a satisfactory substitute for the potato, but I have not found that it was awarded. Psoralea rapidly dropped out of French literature after 1850. It had already been found that it took five or six years for the tubers to attain the size of a hen's egg, which did not promise well for a major crop plant. It had certainly been given up as a failure long before 1873 when Vilmorin summarized it in *Bon Jardinier*.[6] Although he admitted that the life habits of the plant might be greatly altered by cultivation, it would obviously be a very long process, and he regarded it as an academic project. It is noteworthy that there is no record of the firm of Vilmorin-Andrieux afterwards making further trials of Psoralea. The conclusions of Vilmorin were not added to by Paillieux and Bois in 1899,[7] and I think that they dropped the plant from later editions of their work. These two later notices were mere restatements of a brief experiment that had long since been abandoned and forgotten.

Little is known of Lamare-Picquot after his Psoralea expeditions,[8] although he was certainly living as late as December 1859. He was born at Bayeux about 1785, and about 1815 he set up a pharmacy in Mauritius, from which he made a little fortune. Feeling the urge to travel, he made two journeys in the 1820s to Madagascar and to India, where he collected valuable materials illustrating the religions, arts, and customs of the people, and returned to Paris in 1830. Later, having lost his property, he devoted himself to exploration, traveling in North America between 1841 and 1848. His botanical collections, including those of the Psoralea expeditions, were bought by the French Ministry of Public Instruction and deposited in the herbarium of the Museum of Natural History in Paris. Most of his fine ethnological collection, however, was sold in England and Germany. Lamare-Picquot wrote a number of papers (1822–1860), some of which are indexed in the Royal Society's *Catalogue of Scientific Papers*, and he has been credited with one that is certainly by Dr. François Victor Lamare-Picquot, who died in 1865. The forenames of the explorer never appear, though he has somewhere been given the initial "N," and it is doubtful that the two men could have been identical, although their periods overlap and their subject matter is not sharply distinctive.

There has been little interest in *Psoralea esculenta* in the United States, although Frederick Pursh[9] appended to his description of the species a paragraph on its uses among the Indians noted by its collector, Meriwether Lewis. One of the few to study this plant was the late Melvin Randolph Gilmore (1868–1940), who was widely informed on the economic botany of the Plains Indians. In his "Uses of Plants by the Indians of the Missouri River Region," he summarized the literary and linguistic aspects as well as the native uses of *Psoralea esculenta*.[10] When curator of the North Dakota

[6] Vilmorin, "Fourrages-racines," *Bon Jardinier*, 1873, p. 649–650.

[7] A. Paillieux and D. Bois, *Le Potager d'un curieux*, 521–522 (Paris, 1899).

[8] The few data about Lamare-Picquot in Pierre Larousse, *Grand dictionnaire universel*, and J. C. F. Hoefer, *Nouvelle biographie générale* (v. 29, 1859), are partly confirmed and partly supplemented by letters received in the 1920s from Dr. A. Guillaumin of the Paris Museum of Natural History, and Baron Jules de Guerne, the ethnologist, who made an extended study of Lamare-Picquot's collections that seems to have never been published.

[9] Frederick Pursh, *Flora Americae Septentrionalis*, 2:475–476 (London, 1814).

[10] U. S. Bureau of American Ethnology, *Annual Report* (1911–12), 33:92–93 (1919). Also data in letters to the present writer.

Historical Society, he gathered further practical data on its utilization and the possibilities of its cultivation. He found it almost unknown to others in the regions where it grew and utterly ignored save by the Indians who were still digging and using the roots wherever and whenever they could find them. There was one Oglala woman who grew the plant in her garden near Pine Ridge, South Dakota, gathering the seed on the prairie and sowing it in her garden, where she presumably gave it a kind of cultivation. Gilmore did not say how long it took the roots, under these conditions, to reach an edible size. He had opportunities to sample the flour made from the dried roots of *tipsina* as used by the Indian women in baking, sometimes mixed with corn meal, and found its flavor delicious.

At that time the plant was still fairly abundant in lands that had not been overgrazed or broken by the plow, and in 1921 it actually grew in a bit of virgin prairie that had been preserved in the State Capitol grounds at Bismarck, North Dakota. Gilmore was strongly persuaded that Psoralea could be developed into an important feature of our dietary. It had been the opinion of Vilmorin that it might be capable of adaptation through special modes of culture,[11] but he considered such experimentation outside the province of the ordinary grower. Gilmore thought it ought to have a fair trial by experiment stations or plant breeders, and the failure to recognize its possibilities, as well as those of some other native plants of the country, while the ends of the earth were scoured for plant novelties, seemed to him an incredible neglect of opportunity.

While this article is mainly concerned with Lamare-Picquot's undertaking, I venture the theory that, in certain periods at least, it might have been easier to get *Psoralea esculenta* into cultivation if it had been exploited as a table luxury. As a substitute for the potato or other staple starchy foods, it could not have been grown cheaply enough by any of the methods tried, and so it failed to appeal to the highly realistic French. In the United States, moreover, food habits are conventional, though varying widely, and it is likely that few settlers in the Indian country ever used the *tipsina* or had a chance to acquire a taste for it. But experience has shown that similar foods, once introduced, appeal to cultivated tastes. The wild rice, *Zizania aquatica*, which was another of my mother's favorite Indian foods, was almost unobtainable forty years ago, but it has since been put on the market and has won favor among our special foods. And there are many table luxuries that have been largely consumed at extravagantly high prices that are far less attractive to my palate than *Psoralea esculenta*.

[11] Vilmorin, "Fourrages-racines," 649–650.

GRANT'S LETTERS TO HIS MISSOURI FARM TENANTS

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One day, in the midst of the climactic Wilderness campaign of the Civil War, Ulysses S. Grant remarked: "I am looking forward longingly to the time when we can end this war, and I can settle down on my St. Louis farm and raise horses."[1] What Grant had in mind was the farm estate originally owned by his father-in-law, Frederick F. Dent, in Carondelet Township, Saint Louis County, Missouri, not far from the city of Saint Louis. Here Grant wanted to indulge in the activities of a country gentleman, and especially the raising of blooded horses, upon his retirement from public life.[2]

Within a little more than a year after the close of the war, Grant was in Saint Louis endeavoring to end the litigation that encumbered his claim to the Dent farm,[3] and by January 1867 his title

[1] Quoted in Horace Porter, *Campaigning with Grant* (New York, 1897), 167.

[2] On Grant and horses, see William B. Hesseltine, *Ulysses S. Grant, Politician* (New York, 1935), 304, and attendant references.

[3] Diary of Judge W. B. Napton, entries for Dec. 15, 17, and 20, 1866. Missouri Historical Society Library, Saint Louis.

was clear. His first thought was to dispatch a tenant; his second, to increase his land holdings in the area. Piece by piece, adjoining acres were added until, at its maximum expansion in 1873, Grant's farm totaled slightly under 1,000 acres.[4]

During most of his Presidency Grant sought untiringly to make his dream of a farm estate come true. He spent money freely; trusted Saint Louis friends acted as his agents and consultants; responsible individuals filled the post of farm superintendent; the finest blooded cattle and horses were added to the farm at frequent intervals; livestock in number was entered in competition at the local fairs; and Grant himself made at least one trip annually from Washington to direct the development. The thought of retiring to his farm was ever with Grant, and his visits to it only whetted his appetite.

From the standpoint of business enterprise, Grant's farm did not prosper. Moreover, his management of the estate revealed sides of his personality that must have made him a difficult and, at times, trying employer. His salary was inadequate for his grand designs, and the financial mangement was lax and incompetent. Grant himself was perhaps the weakest cog in that financial wheel. Yet no difficulty discouraged him in his efforts to develop his country estate or frustrated his plans to retire on it. His interest increased as his second term drew to a close, for his cherished hope was about to be realized. But a national scandal which broke Grant's faith in supposedly honest and trustworthy friends shattered his dream.

Grant's letter of April 24, 1875 gives no indication that he was about to abandon his farm estate. Unquestionably, at the time he had no intention of doing so. However, on May 10 of the same year, revenue officers seized liquor distilleries in Saint Louis, Chicago, and Milwaukee and exposed publicly a group of men who had defrauded the United States Government of internal revenue since the days of President Andrew Johnson. Some of Grant's intimate friends were among the conspirators in the Saint Louis branch of the infamous Whisky Ring, and General John McDonald, Grant's old friend and appointee as collector of internal revenue for the Saint Louis district, was its leader. When Grant visited his farm and attended the annual fair at Saint Louis in October 1874, he had been lavishly entertained and feted by the leaders of the conspiracy.[5] No evidence exists to implicate Grant of collusion or connivance in the frauds, but his faith and trust in friends had led him to accept their hospitality.

When the exposure came, Grant was crushed. He had taken friends at face value. The proferred hospitality of the Saint Louis leaders of the ring had been accepted in the spirit of friendship and in honor to his position as President. Not once had Grant suspected that his acceptance of hospitality was being played up by the conspirators as evidence of his tacit approval of their illegal activities. Grant had been used unknowingly to promote illicit operations. His inability to judge men had led him to the brink of disgrace.

What transpired in Grant's mind in the months following the disclosure of the Whisky Ring is but conjecture. Evidently, the hope of retiring to his farm faded; it became apparent that peace and happiness in retirement would have to be found elsewhere—far removed from deceitful and dishonest friends. On September 24, 1875, Grant stopped at Saint Louis, en route to Des Moines, Iowa, and stayed four days.[6] While there, as the last letter here printed indicates, he ordered his personal property on the farm sold and the estate itself leased.[7] Seldom, if ever, did Grant subsequently return to Saint Louis, the scene of his great disillusionment. So ended, finally and completely, and without renewal, Grant's dream

[4] Abstract information from the records of the city and county of Saint Louis by courtesy of the Land Title Insurance Company of Saint Louis in a letter to the editor, Aug. 6, 1946. Also land tax receipts for 1871 and 1872 in the Grant-Elrod Papers, Illinois Historical Survey, University of Illinois, Urbana. Hereafter cited as the Grant-Elrod Papers.

[5] Lucius E. Guese, "St. Louis and the Great Whisky Ring," *Missouri Historical Review*, 36: 166 (January 1942).

[6] Walter B. Stevens, *Grant in Saint Louis* (Saint Louis, 1916), xii.

[7] Because of an emergency in the New York banking firm of Grant and Ward in May 1884, Grant mortgaged his farm in Missouri to William H. Vanderbilt in return for a $150,000 cash loan. When the firm of Grant and Ward failed several days later, the title to the farm passed to Vanderbilt. Grant surrendered all claim to it slightly more than three months prior to his death on July 23, 1885. Abstract information from the records of the city and county of Saint Louis by courtesy of the Land Title Insurance Company of Saint Louis in a letter to the editor, Aug. 6, 1946.

of retiring to his Missouri estate to live as a country gentleman in the center of broad fields and amidst the fine cattle and blooded horses which he loved so well.

The letters from Grant to his farm tenants which are here printed constitute an interesting record of his interests and ambitions in agriculture. The original manuscripts of the letters to William Elrod, with several indicated exceptions, are in the Grant-Elrod Papers of the Illinois Historical Survey at the University of Illinois, Urbana.[8] This group of letters was long in the possession of Elrod's daughters, the Misses Mary, Clara, and Sadie Elrod, of Centralia, Illinois. Except when indicated otherwise, the original manuscripts of the letters to Nat Carlin are in the Grant Farm Letters, Manuscript Division, Henry E. Huntington Library and Art Gallery, San Marino, California.[9] When owned by the late W. K. Bixby of Saint Louis, this group was printed in Walter B. Stevens, *Grant in Saint Louis* (Saint Louis, 1916), 157–172. One hundred copies of this volume were printed for members of the Franklin Club of Saint Louis. The misspellings and improper punctuations in the letters originated with Grant. Since these are particularly numerous, the customary *sic* has not been used in the editing.

HEAD-QUARTERS ARMIES OF THE UNITED STATES[10]

Jan. 15th 1867

Dear Elrod.[11]

I have been waiting to see the result of the law suit for possession of my land in St. Louis, Co. before writing to you to go out there.[12] Besides a number of cabins on my place, which by the way I have directed shall all be pulled down, there are three good houses. One at the end of the place furthest from St. Louis is a fine house well furnished.[13] It is not properly situated for any one to live in to attend the farm the body of the cleared land being from one to two miles distant from it. Besides I want to keep that to occupy a few weeks each year myself. The house I intend you to occupy permanently is in the middle of the place.[14] It is the house occupied by my father-in-law for the last forty years. This place was leased out before I purchased it however and although I offered the tenant $500.00 to give up his lease, which has but one year to run he refuses to take it. This leaves me therefore the two ends of the farm on one of which there is no cleared land except what is in orchard, the other is occupied by Mr. White who has kept me out of the place for eight years without paying a cent for it or even the taxes.[15] I have

[8] The editor thanks Professor T. C. Pease, director of the Illinois Historical Survey, for permission to publish the Grant-Elrod Letters. The editor also thanks Captain Aubrey H. Starke, Headquarters, Army Air Forces, Washington, D. C., for initial researches made some years ago in the editing of these letters.

When these letters were in the possession of the Misses Mary, Clara, and Sadie Elrod, Grant autographs clipped from the letters were generously given to adolescents expressing an interest in Grant. This generosity accounts for the absence of complimentary closes and signatures on the letters dated Sept. 4, 1867, May 27, Oct. 29, and Nov. 26, 1868, Aug. 23, 1869, Aug. 24, Sept. 8, and Oct. 23 and 26, 1870, Feb. 28 and June 23, 1871, Mar. 15 and Apr. 23, 1872, and Feb. 27 and May 11, 1873. The restored words in brackets in the text of the letters were cut away along with the complimentary closes and signatures.

[9] The editor thanks the Librarian of the Huntington Library for permission to publish these letters. Hereafter cited as the Grant Farm Letters.

[10] Grant was in command of the armies from Mar. 9, 1864 until his inauguration as President on Mar. 4, 1869.

[11] William Elrod was the husband of Grant's cousin, Sarah Ellen. She was the daughter of Samuel Simpson, the brother of Grant's mother, Hannah Simpson.

[12] According to the address on the envelope which carried this letter, Elrod lived in or near Nicholsville, Clermont County, Ohio. Grant-Elrod Papers.

[13] This house was called Wishtonwish (from whippoorwill). It was constructed by Frederick Tracy Dent. It fronted the well-traveled Gravois Road and was approximately three-quarters of a mile south of White Haven, identified below. The original structure was burned during the Elrod tenancy (1867–1873) but was rebuilt immediately.

[14] This house is White Haven, the former home of Grant's father-in-law, Frederick F. Dent, and the largest of the three substantial houses on the estate. Here Grant courted Julia Dent, when, as a young army lieutenant, he was stationed near by at Jefferson Barracks. The house, completely restored, is today the residence of Mr. and Mrs. Delbert S. Wenzlick of Affton, Missouri. White Haven is sometimes spelled as one word. Grant, however, wrote it as two (see his note of Aug. 12, 1875).

[15] The house occupied by White is Hardscrabble, a log cabin approximately a mile northwest of White Haven. It was built by Grant on a plot of land belonging to his wife. Here Grant and his family lived

got judgement against him now however and unless he appeals I will get possession before you can get out there. This is the place I want you to occupy until I get possession of all my land when I want you to move to the house Mr. Dent has lived in so long.

You may start out as soon as you like. When you get to St. Louis enquire for the Gravoist Rock Road. You will want to go first to Mr. Sebastion Sappington's who is my agent. Mr. S. lives[16]

WAR DEPARTMENT[17]
WASHINGTON CITY,

Sept. 4th 1867.

Dear Elrod.

I regret to learn that Dr. Barrett has been permitted to cultivate this year the orchard opposite to his house. I would have much prefered the old man who lives in my house should have had it. I do not want [to have any one who does not live on my place to have any thing to do with the land, or to have any pretext entitling them to drive in and through the place. I do not want Mr. Sappington or the Dr to fill my ice house.

It is a good ways from where you live for your children to walk to school but I think you had better not move until you can get the house now occupied by Kesselring.[18] My children used to walk as far, or rather Fred did.[19] If there is any possible chance I will go to Mo. and then I should live in my house even if I only remained there a week.

Washington, D. C.
March 10th 1868.

Dear Elrod.

I should have been in Mo. by this time but for the impeachment of the President. Whilst the trial lasts I presume it will be necessary for me to remain in this City.[20] If it is over in time I will take my family out and spend two or three weeks in Mo.—I went yesterday to make arrangements for shipping two horses to you. If I can send them they will probably start from here about Monday next. Go on with farming the best you can until I do go out. You did well to save what was coming from Kasselring. When you can it will be well to increase the number of cows on the place so as to make butter or milk an object. I can not spare money however to do what I expected. If you can sell the notes you hold on Jefferson Co. property without too much discount you had better dispose of them.[21]

You will not require a mowing machine until about the time you will be selling something so that by getting sixty or ninety days time you can pay for it from the crop. I enclose you two hundred dollars to work along with for the present. I will make your own wages better for this year than last and hope in the end you will be able to accumulate something for each of your children.

Yours Truly
U. S. Grant

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from 1855 to 1858. Of his efforts to build Hardscrabble, he wrote: "I worked very hard, never losing a day because of bad weather, and accomplished the object in a moderate way." *Personal Memoirs of U. S. Grant* (New York, 1885), 1: 211. Elrod and his family lived in Hardscrabble for a year after coming from Ohio. Reminiscence of Elrod's daughters, the Misses Mary, Clara, and Sadie. Hardscrabble now stands on the August Busch estate approximately 1½ miles southwest of its original site. For an impressionistic account of Grant's cabin as it stands on the Busch estate, see Alvin H. Sanders, "Farms of the Famous... Ulysses Simpson Grant," *New Breeder's Gazette*, 93(7): 22–23 (July 1928).

[16] The remainder of this letter is missing.

[17] From Aug. 12, 1867, Grant served as Secretary of War, *ad interim*, to replace Edwin M. Stanton, who had been suspended from office by President Andrew Johnson. The Senate, which convened the following December, refused to concur in Stanton's removal, whereupon Grant surrendered the office of Stanton. See J. G. Randall, *The Civil War and Reconstruction* (Boston, 1937), 764, 766.

[18] Elrod had requested permission to move from Hardscrabble to Wishtonwish, which was nearer the school the Elrod children attended at Webster Groves. Reminiscence by Misses Mary, Clara, and Sadie Elrod. Kesselring lived in White Haven.

[19] The Fred referred to was Grant's son, Frederick Dent Grant (1850–1912). While a boy, he was wounded at Vicksburg. He graduated at West Point in 1871, served as a brigadier general of volunteers in the Spanish-American War, and became a major general in 1906.

[20] The Senate was in the process of trying President Johnson from Mar. 5 to May 26, 1868. See Randall, *The Civil War and Reconstruction*, 761–783.

[21] Jefferson County borders Saint Louis County on the south.

Can you not sell some corn and hay? It seems to me you must have some to spare.

U. S. G.

Washington, D. C.
March 17th 1868

Dear Elrod.

Tomorrow morning the two horses I send from here start by rail to the care of C. W. Ford of the of the U. S. Express Company, St. Louis.[22] They will probably reach St Louis in about one week. One of these animals is a mare, very large and kind in all kinds of harness. I think about June you had better breed her to some large fine horse.[23]

very strong. Work any place you put him, single or double, near or off side. The mare is the same. The horse strained his right hind ancle very badly over two months ago and may not be fit to work this summer. If he recovers entirely you will find him a superb horse and he ought to bring $1000.00 readily for his stud. He is ten years old. The mare I do not know the age of. The cost of the mare and her mate that died was $800.00[24]

HEADQUARTERS ARMY OF THE UNITED STATES

Washington, D. C., Apl. 2d 1868

Dear Elrod.[25]

I believe I mentioned it to you before, but lest I may not of done so now mention it again that I want all my mares put to a blooded horse. Legal Tender will be a good horse. The last mare I send out, from a blooded horse, should raise the finest kind of carriage horses. The three mares from here, with those you have, will give you a good start. Brood mares will not do for heavy work but they will do all the light.

Those I send from here I shall never wish to have hitched to a load. They will do to go to a light market wagon and such work as that. In a year I will probably have my own horse to breed from. Put the mares early.

Yours,
U. S. Grant

Washington, D. C.
Apl. 28th 1868,

Dear Elrod.

Have all three of my mares put to a blooded horse. What one I leave entirely to your own judgement. If Legal Tender is standing I think it would be well to try him again, but I am not particular. I have two colts here, one of which I hope to raise for a stallion to put on my farm. I also have one in Wisconsin to raise for the same purpose, both well bred both on Sire and Dam side.

I shall unquestionably go to Mo. soon after the impeachment trial closes.

Yours Truly
U. S. Grant
Gen, l

P.S. Cant you make pork enough this year to put up about twenty hams to send to me?

U. S. G.

Washington, D. C.
May 27th /68

Dear Elrod,

I want you to take possession of W. Dents', and Gen. Dents', lands, collect the rents, and as soon as possible get all tenants off the places. Next year we will put their cleared lands in oats and clover if you think best. If they are rich enough you can put in wheat and timothy this fall.

I will be out to the farm just as soon as possible. I will take out with me, if I do not send before, power of Attorney for you to act for the Messrs. Dent.

I am pleased to know you have the farm all enclosed! After a while we will have stock enough to eat all the grass. In time I hope you will have cows enough to make it an object. When the crop comes into market you may be able to buy a few heifer calves to help along a little. My expenses

[22] Charles W. Ford (d. 1873), an attorney by profession, was manager of the Saint Louis office of the United States Express Company at this time. He had been an intimate friend of Grant since 1851, and he acted as Grant's farm agent from 1867 to 1873. A staunch Republican, Ford was appointed district collector of internal revenue in Saint Louis by Grant. There is some evidence that Ford was implicated in the Whisky Ring.

[23] A page of the letter, evidently written on both sides, is missing.

[24] The remainder of this letter is missing.

[25] The envelope of this letter is addressed to Elrod at Webster Groves, Saint Louis County, Missouri. Grant-Elrod Papers.

are so great that I can spare but little money out of pocket to put in the farm. You of course understand that I intend your salary for this year to be $500.00 besides what Sarah Ellen and the children can make off of chickens![26] After this year I hope they will be able to make Three or Four Hundred that way.

Galena, Ill.[27]
Aug. 24th 1868

Dear Elrod.

It is now the time I expected, when I came here, to have started back East. It is so pleasant here however that I have concluded to remain one month longer. I wish you would [write to me her]e and let me [know how yo]u are getting on. Tell me whether you had good rains after I left! How the crops are likely to turn out! Whether you have bought cows yet! What progress has been made on the barn, &c. Do you think all the mares are in foal? If you have not yet got money from Benoist I can send you $500.00 from here. If your crop of potatoes turn out well it will bring you in considerable money. Potatoes must be high this year for there will be none in this section to send to market.—In setting out grapes next year I think I would try about one acre of the Catawby.[28]

Your Truly
U. S. Grant[29]

P.S. The first time you go to the city call at Grants' Livery Stable, on 7th St. back of the Courthouse, and pay my bill.[30] How have you fixst the carpets & furniture at my house?[31] Mrs. Grant thinks camphor should be sprinkled in the carpets,

U. S. G.

Galena Ill.
Sept. 4th /68

Dear Elrod.

Your letter is received. I am rather glad you have bought no cows. I think now it will be better to buy none except you can do it from the proceeds of the farm. You can build your barn and the fence I told you about,[32] and cultivate to the best advantage to give money and gradually get it stocked and improved just as we want it. What I said about grapes however I want carried out. Buy enough in the spring to complete the lot you have commenced planting on, and then from your own cuttings extend as far as looks proffitable.

Get barely money enough from Benoist to pay up square, and what your sales lack of running you untill next harvest I will supply.

All are very well. I do not know now when I will go back to Washington. You had better make paper payable to Benoist fall due the last of Oct. If you have already borrowed however make no

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[26] Sarah Ellen was Elrod's wife. See note 11.

[27] In May 1860, Grant removed to Galena, Illinois, where he remained until the outbreak of the Civil War. Of his employment there, he wrote: "While living in Galena I was nominally only a [leather store] clerk supporting myself and family on a stipulated salary. In reality my position was different. My father had never lived in Galena himself, but had established my two brothers [Orvil and Simpson] there, the one next younger than myself in charge of the business, assisted by the youngest. When I went there it was my father's intention to give up all connection with the business himself, and to establish his three sons in it. . . ." *Personal Memoirs of U. S. Grant*, 1: 215–216. Following the Civil War, Galena presented Grant with a fully furnished home, purchased by popular subscription and valued at $15,000. Within a few weeks after Appomattox, Grant stated his intention of declaring Galena his legal residence. Grant to Elihu B. Washburn, Washington, D. C., May 21, 1865, in *General Grant's Letters to a Friend, 1861–1880* (New York, 1897), 47.

[28] The Catawba grape, a well-known light-red variety, is cultivated extensively in the Middle West. The name is from the Catawba River of the Carolinas where the grape was first produced.

[29] This complimentary close and signature is cut away; a copy, however, is in the Grant-Elrod Papers.

[30] This livery stable was at the corner of Seventh and Chestnut streets in Saint Louis. Its proprietors were Samuel S. and Ben T. Grant.

The courthouse referred to is known today as the Old Courthouse. It occupies the block bounded by Fourth, Broadway, Market, and Chestnut streets. Completed in 1862, it was in use until 1876 as the county seat of Saint Louis County. At present it houses the headquarters of the Jefferson National Expansion Memorial of the United States National Park Service.

[31] Wishtonwish.

[32] This barn was constructed during the Elrod tenancy. Reminiscence by Misses Mary, Clara, and Sadie Elrod. A large barn which stands today at White Haven originally had 22 box stalls, apparently for Grant's horses.

change, but notify me of what you have done and I will arrange to meet it.

Yours Truly
U. S. Grant

DEPARTMENT OF AGRICULTURE
Washington

September 15th 1868

General U. S. Grant
Galena, Ill.

My Dear Sir:

This Department has lately received from Europe, a quantity of Autumn seed wheat for distribution to Members of Congress, Agl. Societies and a few practical farmers who have the facilities for giving it a fair trial and the disposition to make a full report of the result to the Department.

It affords me pleasure to say that, I have forwarded by the mail of today, (marked as per memo. enclosed) three bushels, consisting of one bushel each, of "Talavera" "Rough Chaff" and "Polish"; the two former of English, and the latter of Russian growth. Mr. Ford will be advised by this mail, to forward the wheat to Mr. Elrod as soon as it arrives in St. Louis.

These wheats bear a high reputation, in the sections of country from which they came, as as hardy, early maturing and very prolific, and I trust they will prove a valuable acquisition to your cereal products.

I am, Sir,
Your Obt. Servant
Horace Capron[33]
Commissioner

I did not intend to have any wheat sewn on my place; but this coming as it does you may prepare a piece of ground and try it.

U. S. Grant

Galena Ill.
Oct. 29th 1868

Dear Elrod:

I think there had better be some insurence on my farm property and I want it taken in a reliable company.[34] I leave you to be the judge of that. You make no mention whether you received a check from me for $500! I sent you that amt. after leaving St. Louis the last time. I want you to draw on me for the least amount you can possibly get along with. I have just had to pay $1,500 for Mr. Dent which I knew nothing of and now I hear of another note of his which with the interest, will come to about $1,200.00. This puts me in debt a good deal, and every dollar I send to the farm adds to the amount.

If you do not write by the day of election your letter will not probably reach me here.

Family all well.

HEADQUARTERS ARMY OF THE UNITED STATES,
WASHINGTON, D. C.

Nov. 26th 1868

Dear Elrod.

In sending money to Ford to pay him what he has paid out for me I have sent him several hundred dollars over, with instructions to pay the balance over to you.

Newport R. I.[35]
Aug. 23d /69

Dear Elrod.

Whilst at Long Branch I got an Alderny bull and two heifers to send to the farm.[36] They are of the very purest blood. I expect before going back to Washington to stay to buy some five or six more heifers. It is possible that those already got may have gone to you. When they go I want you to dispose of the bull you now have and keep none but the one I send. One of the heifers I send is with calf by another bull. Should she have a male calf raise it for the farm, but all male

[33] Horace Capron (1804–1885) was United States Commissioner of Agriculture from 1867 to 1871 when he resigned to become an agricultural consultant of the Japanese Government. He was widely known because of his progressive farming methods and his activities with national, state, and local agricultural societies.

[34] The following month Elrod took out fire insurance in Grant's name on White Haven, the Elrod residence. This $2,000 policy, issued by the Home Insurance Company of New York, ran from Nov. 16, 1868 for 3 calendar years. The policy is in the Grant-Elrod Papers.

[35] This letter is written on ladies' note paper, blind stamped, with a crest bearing the motto, "vincit qui patitur" (he conquers who endures). Both Newport, Rhode Island and Long Branch, New Jersey were fashionable resort centers where the social elite of the East gathered during the summer months.

[36] The name Alderney was commonly applied to any cattle from the Channel Islands but particularly to the Jersey breed.

calves by the bull I send out dispose of as best you can. All others raise with the view of ultimately geting a full stock of Alderneys.

Yours Truly

Washington, D. C.[37]
March 27th /70

Dear Elrod:

As it is now getting to be about time to commence spring work I will state a few things I want done on the farm. I want you to continue getting out grapes until as much of the field in front of the house as is suited to that purpose is filled up. I would not put out many this year, and would be careful that all that you do set out are well done. I would not rent a foot of land nor permit a tenant in the place except it be some one who you want to hire to work. The place bought from Mrs. Orr I would keep to be occupied by an experienced grape grower when the crop is sufficient to warrant hiring such a man.

The house on the south side of the creek, on the Orr land, I would pull down throw all the land on that side of the creek into one pasture. All male calves hereafter I would sell for veal and put the money, if you can spare it, into cows or young heifers. I presume, from not hearing on the subject, that you will have a fruit crop this year? If so would it not be profitable to sell to hucksters and let them take it away or to deliver in bulk! When you write give me an account of stock. The horse I am raising for the farm is but two years old and I expect to keep him for the balance of my term of office. I have the promise of a very fine one in Wisconsin however which I may be able to send earlier.

Yours truly,
U. S. Grant

FAIR LAWN[38]
NEWPORT.

Aug. 24th 1870

Mr. Wm Elrod:
Dear Sir:

If you [have] not cut down [any] trees you need no[t do] so. The old orch[ard,] the one near you[r] house, I want ke[pt] particularly whet[her] it bears good fruit or not. At the White place I have no objection to your cutting away such as is not worth keeping.

After visiting the farm I visited a wine sellar in the city. It has changed my theory entirely. I find that the Concord grape has no market now,[39] as a wine grape, and to raise more than you have now set out will probably prove a loss. At your convenience some time find out just what grape will find a ready market and plant none other.— I will send you the money in the Fall to purchase young cattle with.

Washington D. C.
Sept. 8th 1870.

Dear Elrod;

Enclosed I send you check for One Thousand (1000) dollars to be used in the way mentioned when I last saw you. I will endeavor to send you an Alderny bull this fall.

I wrote to you to set out no more Concord vines! I am satisfied they will not pay. An investigation by yourself will demonstrate the kind to plant, if any.

EXECUTIVE MANSION,
WASHINGTON D. C.

Oct. 23d 1870

Dear Elrod:

Mr. Ford has advised me of the arrival of two head of cattle at St. Louis. I presume them to be an Alderny bull and heiffer from New Jersey. If so, and the bull is too young to serve now get another for this year, but keep all the Alderney heiffers until they can go to a bull of their own kind.

I shall send you one of my fast mares with her youngest colt, a two year old filley and the stallion colt, two years old, this week or next. A man will go with them and I will then send more particular directions. There is not one of these animals that I want ever to do a days farm, or heavy, work. The mare I gave $1300.00 for and would not take twice that for her. The filley is

[37] The original manuscript of this letter was given to the editor by the Misses Mary, Clara, and Sadie Elrod when he was a high school freshman. A copy is included in the Grant-Elrod Papers.

[38] This letter is on ladies' note paper embossed, "Fair Lawn Newport." Grant was the guest of Levi P. Morton, the owner of Fair Lawn. The residence, located on Bellevue Avenue, stands today.

[39] The Concord grape is considered the leading American variety. Its fruit is large, bluish-black, and sweet-flavored.

Eathan Allen stock,[40] fast trotters, though she is a natural pacer. She will always be small and I do not want a collar ever put on her.

I have the pedigree of the dam of the colt I send you. On the sire side he is Hambletonian.

If you have it I wish you would send some Apple butter by Express.

EXECUTIVE MANSION,
WASHINGTON D. C.

Oct. 26th 1870

Dear Elrod:

My horses start for St. Louis to-morrow, in care of a man who has lived with me for over four years. He will stay a day or two on the farm[41]

a few, fast troting mares that I want you to breed from. I want you to meet the stock in St. Louis. I will direct Richard (the man who goes with the stock to stay with Ford until you call.—The stock that went out recently is the best thorough bred Alderney. Keep the Alderney stock pure and make butter from their milk. They give but little milk but that is very rich and makes butter which will usually bring 25 pr. ct. more than common butter. I should think my horses should reach St. Louis about Tuesday next. Do not stay away from the election however to go after it.

EXECUTIVE MANSION,
WASHINGTON D. C.

Nov. 24th 1870

Dear Elrod:

Richard has returned and reports horses all safely delivered on the farm. You will have to keep one hand who is a good horseman, after this Winter, to look after the colt. As I do not want him to go to a single mare, except my own, before he is four years old the same hand can do a good deal of work in addition the first year. After that he will have enough to do in looking after the stallion, young colts, and mares.

I was sorry to hear you had rented out any portion of the farm! It will make no difference however for one year. I think the place will feed 300 head of cows the horses and sheep, and pork enough for yourself and hands. To do that you may have to buy some grain each year but the pasturage and hay, and a portion of the grain, can be raised on the place. It will be several years however before you can have any such amount of stock. I want you to raise all the heifer calves hereafter until you get the maximum amount of cattle you can find. I think too you should keep two or three sows and raise your own hogs.—If I can borrow the money I will send you $3,000.00 in a week or two. Out of that I want you to buy 25 young cows and plank enough to straiten the road up the creek with a plank fence on each side of the lane.[42] As fast as you have the means I want you then to buy plank and make a plank fence from the turnpike out to Mr. Pipkins place; along the turnpike from where the plank fence now ends along the front of the land bought from Mrs. Orr, and the whole length of my land on the Garrison road.[43] With the rails you can then get you can make cross fences so as to throw the farm into convenient fields. As fast as the land gets fit for timothy you should set a good deal in timothy. The money I now send you is the last I want to send to the farm. In fact I shall hope soon to get a dividend from it. Before that however I want a Lime kiln built, another barn and a large addition to your house to accomodate the increased number of hands you will have to keep.

Yours
U. S. Grant

EXECUTIVE MANSION,
WASHINGTON, D. C.

Feb. 28th 1871

Dear Elrod:

The bull sent to you is a thorough bred Alderney.

[40] For information on the breeds of horses mentioned by Grant, see H. T. Helm, *American Roadsters and Trotting Horses* (Chicago, 1878), and John Dimon, *American Horses and Horse Breeding* (Hartford, Conn., 1895); for the turf records and pedigrees, see *Wallace's American Trotting Register* (New York, Chicago, and Goshen, 1871–1932).

[41] Part of the text is missing here. The removal of the complimentary close and signature by cutting also took the text on the reverse side.

[42] Gravois Creek.

[43] The present Rock Hill Road. A roadway through Grant's estate was named Grant Road, evidently during his Presidency, and is today known as such. See Grant's letter of May 28, 1874, in the office of the Highway Engineer, Saint Louis County, Clayton, Missouri.

If you can get any one to take him to keep for their own use until the calves of the bull y[ou] now have are old enough to serve yo[u] might do so, and th[en] either sell the one you have, or change him with whoever keeps this last one.

Some time in Jan. or earlyer, I sent you a pamphlet on Agriculture, and particularly on the feeding of stock, and wrote at the same time that you might regard your pay raised to $60.00 pr. month from the 1st of Jany. Did you get my letter and the pamphlet? I will be in St. Louis this spring or summer and will be on the farm two or three days and make arrangements for building more stable room and for the repair of your house. I think you are right about buying cows instead of heiffers. When you have the money buy cows as the opportunity occurs. Raise the heiffer calves however calved on the place.

Long Branch, N. J.
June 23rd 1871

Wm Elrod, Esq:

As I have not heard from the farm since I was there in Apl. I presume every thing is right. However I like to hear particulars occasionally. Have you made any of the proposed improvements yet? You spoke of mixing lime with manure before putting it upon the ground! That will not do. Lime and manure should not be used at the same time. The lime would release the Amonia, the most valuable ingredient, from the manure. If you get the lime kiln put about 80 bushels to the acre on all the cleared land as fast as you can and put no manure where you put lime until the latter is all taken up by the soil.

Let me hear all the news from the farm: how many cows, calves, colts &c. I shall probably have to send you two of my horses this fall to work on the farm. They will be fine for that but from injuries are unfit for carriage horses any longer.

You need not sell the three year old grey colt until I see whether Fred. goes where he can take him.[44]

[44] Grant's son, Frederick Dent, was graduated at West Point in June 1871. At the time of this letter, he was on leave in Europe which extended to Nov. 20, 1872. Records, Association of Graduates, United States Military Academy, West Point, New York.

Long Branch, N. J.[45]
July 30th 1871,

Dear Elrod:

Three different letters have come to me in the last day or two enclosing the same report of a correspondent relative to the condition of the stock on my farm. The fellow lies unnecessarily in regard to whom the stock came from, and how obtained, but I feel distressed at his statement of its condition. Young Hambletonian was foaled mine, from a fast mare which I owned until she died two years ago, and for which I would not have taken $5000.00. The "Dutch Belted" cattle I paid a high price for,[46] a price at which if I can sell the progeny will make farming profitable.

Let me know what truth there is in this report.

Yours Truly
U. S. Grant

Chicago, Ill.
Oct. 2d 1871

Dear Elrod:

I should like very much to be in St. Louis this week to attend the Fair, but cannot be. I hope however the stock you have entered will make a good appearance.[47] It is my intention to send two or three of the horses I now have in Washington, now getting a little old, to the farm and take from there Legal Tender for a saddle horse and his

[45] This letter is on ruled paper, blind stamped, with the monogram U S G, the U and S being intertwined within the G.

[46] The Dutch Belted dairy breed originated in the Netherlands. They are medium-sized and black with a broad band of white around their bodies.

[47] The following entries, with awards indicated, were made in Grant's name at the Saint Louis Fair in October 1871; Alderney (or Jersey) bulls; Alderney cows (of any age); stallions of all work (3 years old)—Young Hambletonian; stallions (2 years old)—White Cloud; short horn cows (3 years old and under 4); geldings (3 years old and under 4)—Legal Tender; mares of all work, breeders—Topsy and Jennie; mares of all work (1 year old and under 2)—2 entered, received first and second premiums; mares (under 1 year)—received second premium, $5.00; bull (any age or breed)—one Holstein entered; herd of cattle (1 year old or less); roadster mares (2 years old or less)—first premium, $25.00; suckling colt—first premium, $50.00. Saint Louis Agricultural and Mechanical Association, *Eleventh Annual Report*, ed. by J. L. Tracy, (Saint Louis, 1872), 136, 142, 143, 144, 150, 151, 152, 157, 160.

half brother for a buggy horse, to work with one of his own age that I have there. The colt I want to work him with is a sister to "Young Hambletonian and promises more size and speed than he does. Unless Bassham promises speed therefore I will not want him.

I engaged a thorough bred Alderney bull calf in the East which will be send out to you this Fall. He will do for service in the Spring. You may then sell or kill the bull you now have. The one Bas. Sappington has you may dispose of now in any way you think best. Alderney bulls are so viscius when they get old that it is best to dispose of them as soon as they are three years old.

Yours Truly
U. S. Grant

Washington, D. C.[48]
Nov. 3d 1871

Dear Elrod,

Enclosed I send you checks for $1500.00 which is as much as I can spare just now, and hope you will be able to get along with it. Should it be necessary however I will raise some more hereafter. I have received your letter proposing to divide expenses of the Fair between Ford, you & myself. Of course I can not think of such a thing. On the contrary I feel very much in debt to Mr. Ford for the many voluntary services he has rendered me and hope some day to able to partially repay them. The mares that are not with foal, particularly the Ethan Allen mare I would try again this Fall. The mare that Orvil sent,[49] if you think she will not breed, you may sell for what she will bring. The same of any other mare that will not breed and is of no use.

Yours Truly,
U. S. Grant

EXECUTIVE MANSION,
WASHINGTON D. C.

March 15th 1872

Dear Elrod:

I shall not be able to send you any horses from here this Spring; but I think you had better purchase a pair of large strong mares. They could be put to the horse and still do full work this year. If all should breed then next year more would have to be bought: but it is not likely that all will.— I think it advisable now to stop sheep raising. Sell all the lambs in the Spring and Summer and as the old sheep find a market as Mutten sell them. I would have none on hand for next Winter. If you can not raise the money to buy two mares I will spare you $200.00 towards it.

Have you used any lime yet? I am anxious to see the effect particularly on clover. Clover hay should never be fed to horses particularly horses that have any work or exercise. It is very bad for the wind. Hence I hope you have enough timothy for the horses and will get it in as fast as possible.

You may if you think proper take out licence and stand Young Hambletonian, on the farm, this Spring. I would not have him go to exceed fifteen or twenty mares, besides mine, and would set the price of $30.00 the season for this year, pasturage extra.

If, when you begin to sell in the Spring & Summer, have any spare cash put it into additional cows. I think too you should raise a few acres of carrots & turnips to feed to cattle and colts in the Winter.

I think it doubtful whither I shall get to the farm this year though I may for a day or two in June,— Will you have fruit this year?

Washington D. C.
April 23d 1872.

Dear Sir:

In writing to you a few days ago I forgot to say that you might breed the two two year old filleys. If we were prepared to have them properly driven and exercised I would not have them bred. As it is they may as well be allowed to raise colts f[or a few season]s. [Our experience with] Logan has [proved that any] horse that is worked and fed on clover hay will become more or less foundered. Straw is infinitely better for work horses than clover hay.

I shall send for Logan and the three year old in about two weeks. Will send at the same time a fine Alderney heiffer, with calf. I am also negociating for four heiffer and one bull calf, Holstein or Dutch Belted Cattle,[50] and the same of Alder-

[48] A copy of this letter is in the Grant-Elrod Papers. The original letter is missing.

[49] Orvil was Grant's brother. He lived at Galena, Illinois.

[50] The Holstein, now called the Holstein-Friesian, breed of dairy cattle originated in North Holland and Friesland. They are large-sized and are colored black and white in irregular patches.

ney. If I succeed they probably will reach you in May. I think with that start I will stop the purchase of cattle.
Wm Elrod, Esq.

EXECUTIVE MANSION,
WASHINGTON D. C.

Feby. 27th 1873

Dear Elrod:

Your letter of the 23d inst. the first I have received since mine of last fall in which I asked a number of questions is received. I suppose there is no objection to permitting Mr. Sims, if you wish to employ him, occupy the cabin you speak of. In regard to the sale of lots for persons to build upon I shall instruct Mr. Long fully upon and have him act as agt. in the matter.[51] I shall only sell lots to persons intending to build houses of a good class, to live in themselves; the object being to enhance the value of the balance of the place.

Fred tells me that the two oldest colts of Topsey will make good matches and that both promise to be fast! If so I will probably have them, with Jennies colt, brought East in the Spring. I will be out there first however. He says the oldest of these colts was crippled in the shoulder when he was there; Do not break the younger colt until I get out.

If you have not answered my questions since receiving my last letter please do so now. Y[ou should learn the] price of Holstein ca[lves and not se]ll the bull calves fo[r less than tha]t. I do not want to sell a heiffer calf at any price. I hope you have raised, as I instructed, all the heiffers of every variety of all the stock, and kept the Alderneys and the Holstein stock pure from all crosses. I would have no objection to the sale of Alderney heiffers if you can get $100.00 each for them. That is much less than they can be bought for in the East. In regard to the Holstein cattle; I sent to Orange County,[52] New York, last summer to buy four heiffer & one bull calves and they asked me $300.00 each which I declined to pay.

EXECUTIVE MANSION,
WASHINGTON, D. C.

May 11th 1873

Mr. Wm Elrod:
Dear Sir:

If Mr. Henry T Blow sends his mares to the farm they are to be kept and put to Hambletonian without charge.[53] Gen. Harney also will probably send an Indian mare which I want bred.[54] Mr Henry Wright spoke to me to about sending a mare he has to the farm to breed,[55] but I believe she is to be left there permanently. Mr. Harney told me that he would send a Pat Maloy colt, one year old, to the farm. He must be kept a stallion and prepared for the turf as a race horse. He is thorough bred running stock.

My opinion is that you had better have the yearling horse colts, of which I believe there are

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[51] The man referred to in these letters as Long was John Fenton Long. He was Grant's farm agent from 1873 to 1875. He came of a prominent Saint Louis business family and was an attorney by profession. He served his city and county as chief of police, county marshall, county superintendent of roads and bridges, collector of customs for the Port of Saint Louis, county surveyor, county judge, and member of the city council and school board.

[52] Although Orange County, New York, produced fine cattle, its fame was in outstanding trotters, particularly of the Hambletonian line. See *New York: A Guide to the Empire State* (American Guide Series, New York, 1940), 398; and Elizabeth Sharts, *Cradle of the Trotter* (Goshen, N. Y., 1946), *passim*.

[53] Henry T. Blow (1817–1875) was managing extensive business interests in Saint Louis at this time. He was instrumental in opening and developing the large lead mines in southwestern Missouri. He was a member of the Missouri Senate, 1854–1858, and a delegate to the Republican national convention in 1860. He labored tirelessly to keep Missouri in the Union. He was minister to Venezuela, 1861–1862; member of Congress from Missouri, 1863–1867; minister to Brazil, 1869–1871; and member of the Board of Commissioners of the District of Columbia, 1874–1875.

[54] William S. Harney (1800–1889) was in retirement in Saint Louis at this time. He was ranking cavalry officer under General Winfield Scott during the Mexican War. He commanded the Department of Oregon during the 1850s. He became a brigadier general in 1858. Because of suspected Southern sympathies, he was deprived of the command of the Department of the West in 1861. Given no active command, he retired in 1863.

[55] Henry C. Wright (b. 1823) was a native of Virginia and an attorney by profession. He participated in the California gold rush. He operated a saw and grist mill in Saint Louis County and ground grain for Grant. An ardent Unionist, he was lieutenant colonel of the Second Missouri Regiment of Enrolled Militia. In 1866 he was made chief clerk of the internal revenue office of Saint Louis. In 1874 Grant appointed him papraiser of the Port of Saint Louis.

two on the farm, castrated. It is better attended to at that age than later. I shall endeavor to purchase twelve or fifteen mares to send to the farm this summer.

If Mr. Blow prefers breeding to the young horse let him have his choise. I do not wish the young horse however to serve more than ten or twelve mares this season. Next year he need not be limited.

EXECUTIVE MANSION,
WASHINGTON, D. C.

Oct. 27th 1873.

Dear Sir:[56]

When Mr. Ford was in Toledo I gave him a memorandum of what I wished done at the farm.[57] It will be impossible now to repeat. I will however make arrangements through Judge John F. Long, of St. Louis to pay up the carpenters for their work, and all other debts on the farm.

[56] Nat Carlin, Grant's new tenant, had been highly recommended by Ford. On Jan. 1, 1873, as St. Louis agent of the United States Express Company, he wrote: "The bearer N. Carlin has been in the employment of this company for some months past and has given very good satisfaction. He quits on his own accord, as the work is heavier than he can do. I believe him to be a good man and commend him to any who may need his services." Grant Farm Letters.

[57] Grant and Ford had been together at the seventh annual meeting of the Society of the Army of the Tennessee at Toledo, Ohio, on Oct. 17–18, 1873. Evidently Grant had given Ford extensive written instructions relative to the farm. It is probable that Grant had previously arranged with Ford to have Nat Carlin replace Elrod as farm superintendent. At least Ford made the contract with Carlin (see Grant's letter of Nov. 29, 1874). However, while on his way home from Toledo, Ford died in Chicago, after being sick a week "with bilious pneumonia." *Missouri Republican*, Saint Louis, Oct. 26, 1873, p. 3, c. 4. Grant, feeling deeply Ford's death, wrote: "Our old friend Ford is gone! It was just the . . . week before his death that I met him in Toledo, Ohio, where he had gone expressly to meet me. He looked and seemed as well then—and as cheerful too—as I had ever seen him. . . . I started to write something very different—of a business nature connected with Ford's last visit to me—but when I came to write his name could not do so. The subject must be defered for another occasion." Grant to J. F. Long, Executive Mansion, Washington, D. C., Oct. 25, 1873, in the U. S. Grant Papers, Missouri Historical Society Library, Saint Louis; printed in Stevens, *Grant in Saint Louis*, 149–150. Long replaced Ford as Grant's agent.

You are at liberty to sell all the calves you can, at good prices, and also cows from time to time. You may take as many horses to board and exercise as you can attend to. It is my intention to get out of cattle entirely in the spring. I authorized Mr. Ford also to buy from the cattle yards one hundred car loads of manure.

My instructions have always been to get the farm all in grass and to purchase grain. This I want still to be done.

Mr. F. also spoke of two mares you wished to purchase. If you can sell cattle, corn or other produce to make the purchase you may do so.

I think the two year old bay mare, out of Topsy, should be bred. Colts, horse colts, that you do not think will improve enough by training to pay for the trouble you may keep for farm work or sell at your option.

Unless I should give other directions you may account to, and consult with, Judge Long in matters connected with the farm.

In a few days I will write to Judge Long and it is probable he will go down to the farm to see you.

I wrote Mr. Elrod that his connection with the farm would end with this month, but that he was at liberty to occupy any vacant house on the place, except that one he is now in, until he is located.

Yours truly,
U. S. Grant.

Mr. Carlin,
Webster Groves P. O.

EXECUTIVE MANSION,
WASHINGTON, D. C.

Nov. 28th, 1873

Dear Sir:

Your letter of the 22d inst. was received yesterday. I will answer it in the order of your inquiries. Mr. Elrod was notified in the summer, or spring, that his services on the farm would not be retained after the fall. He should make efforts to give you full possession without delay. If you have hands to board you will require all the room in the house.[58] The inventory of effects on the farm is not a matter of much importance, as every thing there is required for the use of the farm, or for feeding the stock.

As stated before I do not wish to rent any portion of the farm to any body. I would much prefer the land to lay idle, or run to pasture, to renting

[58] White Haven.

it. This applies to G. W. Dent's land as well as mine. I do not see anything at present that I can do for Mr. Elrod. If it was in my power to help him I would do so with pleasure. The best thing for him, it seems to me, is to rent Mr. Tesson's place.

Your disposition of the manure I approve of. As a rule I favor top dressing. But lands that are to be cultivated there is no way of using manure except to plough it under. I would suggest that the land in grass be manured first. If there is any left it may be put on any other land you think best. I want to get the farm in grass as rapidly as possible and cultivate none except as the meadows begin to wear out when they must be cultivated for a year or two before they can be got in order to reset. Put in oats & grass and corn and grass as you propose.

I do not feel disposed to buy fencing material to fence off the meadows as you suggest until the farm pays for it. But the outside fences should be good so as to secure the stock. There is a cross fence in the south wood pasture, separating the burned house from the larger part of that field, and one round the hill field, or orchard, both of which might be removed. That orchard is getting old and might be left in the general pasture.

I directed Elrod to straiten the road along the creek before the rail-road was built so as to have the creek in the pasture. Your doing so now I approve of, and it will give you some more rails. You may also make the pond in the north pasture as suggested in your letter. My directions have been for years to use the dead and fallen timber for fire wood and for burning lime, and to clear out all the wood land to about the thickness timber should be left to grow, leaving standing the most desirable varieties of timber.

You may train Beauty and then sell her to the best advantage you can. I am glad you are arranging to turn the stallions out this winter. It is a wonder to me that young Hambletonian is alive now with the care—or lack of care—that he has gone through with. You had better breed the bay two year old mare in the spring. All the other colts you may try as they get old enough, and the fillies that you think will not pay for training you may set to breeding, and the horse colts you may sell when you can do so to advantage, or keep them for farm work if needed. I will send you two very fine mares next summer, possibly more. One, a sister of Young Hambletonian, is now with foal to Messenger Duroc, probably the most valuable horse in America. The other is a Knox mare, and will be stinted to Jay Gould, a horse that has trotted in 2.21¼, before she goes out. I will send this letter to the care of Judge Long. But let me know in your next letter where I am to address you hereafter. I shall be obliged probably to get some one else to take the Judge's place which I am very sorry for.

Yours truly,
U. S. Grant.

EXECUTIVE MANSION,
WASHINGTON, D. C.

March 8th 1874.

Dear Sir:

In my last letter I forgot to say anything in answer to your questions in regard to the two stallions on the farm. So far as Peacemaker's pedigree is concerned I can get it reviewed from the gentleman—Mr. Sanford—who raised him. Young Hambletonian was sired by Iron Duke, now owned, and always owned, in Orange Co., N. Y. And almost on the adjoining farm to his sire, old Hambletonian. The full pedigree of Iron Duke can be got—if you have not got it—from the Turf Register.[59] Hambletonian's dam was a very fast and stylish mare—Addie—that I got in 1865. She was the full sister of one of the best stallions in Massachusetts—where both were raised—but I do not know the name of the stallion nor do I recollect his owner's name. If I knew either, the pedigree of the dam would be easily obtained. Addie was a dark bay—not a white spot on her—of great speed and high carriage. Her full brother is a sorrell with white face and two or three white legs. This accounts for the color of Hambletonian, he being from a bay sire as well as dam.

Now that the "fence law" has gone into effect,[60] and the Spring promises to be an early one, might you not have Dr. Sharp's place put in oats &

[59] *The American Turf Register and Sporting Magazine* (New York) was a monthly during 1829–1844 (vols. 1–15). It was continued as an annual to 1875. The monthly edition was merged in the *Spirit of the Times*.

[60] The reference is probably to an act of the Missouri legislature, approved Mar. 24, 1873, "to prevent domestic animals from running at large in those counties, which by majority vote, may decide to agree thereto." State of Missouri, Twenty-Seventh General Assembly, *Laws* (Jefferson City, 1873), 70.

clover? If it can be done, even by a few days hire of extra teams, I think I would do it.

Yours &c
U. S. Grant.

N. Carlin, Esq.

EXECUTIVE MANSION,
WASHINGTON, D. C

Apl. 14th, 1874.

Dear Sir:

Your letter announcing the arrival of Richard with the six mares is received. Of the four that went from here one is an old thoroughbread race mare, raised in Virginia not far from here, whose pedigree and performance can, no doubt, be easily obtained. The two mares taken in at Pittsburg are mother and colt. The mother is supposed to be thoroughbread, but her pedigree cannot be obtained. She was raised in the South. Her colt was sired by a Yellow Mexican Saddle horse I had, of great beauty, but not blooded of course. Enclosed I send you all I know of the largest of the three black mares. The other two are Black Hawk Morgan's, no doubt sire and dam. They are too small to breed from to get anything extra, but if they have colts they should make good durable roadsters. I would breed them to the bay stallion. I presume you will breed Topsy's three-year old colt? If there is any promise in Jennie's three-year old I would develop it. Otherwise breed her too. You are aware that she was sired by Young Hambletonian when but two years old.

Your statement for Feby. & March was received. I would like expense account to be given with the same detail that you give receipts—same as given in your previous statements. Soon you will have pasture for all but the work horses so that most of the expense of purchasing feed will be cut off. I hope that hereafter we will be able to raise enough.

Yours truly,
U. S. Grant.

Nat. Carlin, Esq.

EXECUTIVE MANSION,
WASHINGTON, D. C.

June 7th, 1874.

Dear Sir:

As I have not heard from you recently I write to make some enquiries and to make one or two conditioned suggestions. First, I would like to know how you have the farm planted this season: the condition of crops, fruits, &c. Next, I would ask the condition of the stock, how the mares have been bred, whether they are supposed to be in foal, &c. If you have any two-year old fillies I think I would breed them. If Jennie's three-year-old colt (filly) does not promise good speed I would breed her to Peace Maker (proper name Claymore). If she is likely to be fast I would prefer keeping her as an advertisement for Hambletonian's sister has a filly colt by Messenger Duroc and will be stinted to him again. I am anxious to get a horse colt from her to add to the stock of the farm. She is large and the horse large and the sire of some of the fastest trotting horses now living. Would it not be well to put in this fall as much wheat and timothy as you can find ground suitable to grow timothy upon? There is no use to attempt to raise grass on poor soil. Has lime been tried on any of the fields? If so with what success?

Yours truly,
U. S. Grant.

N. Carlin, Esq.

Long Branch, N. J., July 20th 1874.

Dear Judge:[61]

Being reduced down to a pair of carriage horses and one saddle horse I have made arrangements for the shipment of Butcher Boy if he is still serviceable as a buggy horse, with good care. Will you do me the favor to send this down to the farm, at my expense and tell Carlin to deliver the horse to Adams Ex. Co. for shipment without delay
(1)
unless the horse is becoming decrepid from old age. If I get him here I will keep him
(2)
as long as he and I live.

Yours truly,
U. S. Grant

Washington, D. C., Nov. 29th 1874.[62]

Dear Judge:

I hasten to return your letter of the 27th to

[61] This letter to John F. Long is written on the front and back of a plain white envelope.

[62] A copy of this letter to John F. Long is in the Grant Farm Letters. The original letter is missing.

Carlin just received and read by me. I am too busy—having but just commenced my message to Congress[63] to write at length, but wish to say that the business directions to Carlin I approve of. But there is an impression you have—and which you necessarily took from one of my letters—which does Carlin injustice and which I will correct. Carlin did not say that six hundred dollars would pay his present debts nor did he specify any amount. He said to me that there were four bills which ought to be paid at once, and proceeded to give the amounts of each and to whom due, the figuring I did in my head from memory when I came to write. I cannot say even that he left me under the impression that there were no more bills. The fact is he had turned over to him the farm and stock with nothing to sell but the cattle and a few pigs, and not enough to feed the balance until a new crop could be raised; with correction your instructions are timely and good. In the course of a few days I will send you a check for $1000.00. Should more be necessary to pay up my taxes and indebtedness elsewhere I will send it. I want Carlin also to pick up during the winter four or five more brood mares when he can do so on favorable terms. I will forward you means from time to time to meet his bills. Ford made the contract with Carlin. The amount agreed upon was as I understood it, $800.00 per annum. He finding everything himself except he has the house to live in and necessarily gets his fuel from the farm. The man who goes in the spring gets $600.00 with fuel. In addition I allow him a liberel garden plot with team and time to do the plowing. The balance of the work is done out of his own time. XXXXX

Yours truly,
U. S. Grant.

EXECUTIVE MANSION,
WASHINGTON, D. C.

Dec. 26th 1874

Dear Sir:

Enclosed I send you a letter from Mr. Akers, of Lawrence, Kansas.[64] I have written to Mr. A. saying that I would enclose his letter to you and authorize you to select from among the stallions that he wishes to dispose of one to keep on my place the next season. I will make the terms with Mr. Akers. You might select about eight mares to breed to his horse and continue the rest with our own. If you have an opportunity to sell Hambletonian in the spring you might sell him, or dispose of him something on the terms I will take a horse from Mr. A. I am glad to hear that the horses and colts are doing so well. I repeat, if the mares you are driving are likely to make a good team I would continue driving them. If they are not likely to fulfill your expectations then breed them.

I really am not able to send you the articles you ask for. I have already paid out this year some $12,000.00 on the farm and have not got the means to go further. When I go out in the spring I may make arrangements to put the place on a good footing.

Yours truly,
U. S. Grant.

N. Carlin, Esq.

P. S. Write to Mr. Akers on receipt of this.

EXECUTIVE MANSION,[65]

Washington, Apl. 24th, 1875.

Dear Sir:

Your letter of the 12th only reached me on the 22d, probably owing to my absence during the greater part of the time between these dates. In regard to asking Mr. Sprague to send the horse Rhode Island to my farm I cannot do it.[66] If he does not send at the request of Mr. Akers he need not go. I regret to learn the missing of so many foals. I had hoped to get a few more colts from Jennie. She is only eighteen years old. Do you think the smallest black mare is in foal?

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[63] Grant's Sixth Annual Message, Dec. 7, 1874. See James D. Richardson, ed., *A Compilation of the Messages and Papers of the Presidents, 1787–1897* (Washington, 1898), 7: 284–303.

[64] Benjamin F. Akers (d. 1878) was a breeder of thoroughbred trotting horses and a proprietor of extensive stables at Lawrence, Kansas. He operated a race track and held racing carnivals which gained wide popularity.

[65] This letter is from Stevens, *Grant in Saint Louis*, 170. The Grant Farm Letters do not include the original or a copy.

[66] William Sprague (1830–1915), a wealthy Rhode Island manufacturer and Republican, who served as governor, 1860–1863, and United States Senator, 1863–1875. In 1863 he married Kate Chase, the beautiful and much courted daughter of Lincoln's Secretary of the Treasury, Salmon P. Chase.

In regard to the cows on the place I wish you would turn over one of them to Mr. Jackson. The remainder you can take on the terms contained in your letter. Let me know how many colts we are likely to have this year.

Yours &c.
U. S. Grant.

N. Carlin, Esq.

Long Branch, N. J. Aug. 12th /75.

Mr. Nat. Carlin, Supt. of Stock on White Haven Farm, Mo., will please deliver to the order of the Hon. J. R. Jones, of Chicago, Ill., my gray gelding Butcher Boy.[67]

U. S. Grant.

[67] Joseph Russell Jones (1823–1909) owned and operated a wholesale grocery business at Galena, Illinois, 1840–1861. He was a member of the Illinois legislature, 1860; United States marshall at Chicago, 1861–1869; and United States minister to Belgium, 1869–1875. He declined the Interior post in Grant's cabinet in 1875 but served as collector of the Port of Chicago, 1875–1876.

Custom House, Port of St. Louis,
Surveyor's Office, Oct. 13th, 1875

Natl. Carlin, Esq.

I am just in receipt of President Grant's letter of the 12th inst. in which he directs me to carry out his instructions given me in my office on the 26th ult:—to close out all his personal property on the farm, and to rent or lease out the Farm—and to give possession upon perfecting the Lease.

Hence I advise you that I shall sell all remaining property on the farm (included in the schedule you furnished the Prest.) on Tuesday next the 19th inst. And that from the 20th inst. your services on the farm will cease. Your personal services will be paid for to that date.

Very truly yours,
John F. Long,
Spl. Agent for
U. S. Grant.

Evidently Jones postponed taking Butcher Boy to Chicago. He did not dispatch a man to bring the horse until Sept. 29, 1875. See note by J. R. Jones, Chicago, Sept. 29, 1875, in the Grant Farm Letters.

THE ANGORA GOAT: A FOOTNOTE IN SOUTHERN AGRICULTURAL HISTORY

JAMES C. BONNER

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By 1840 the cotton region of the southeastern United States was suffering from soil exhaustion and ruinous prices that resulted in abandonment of old plantations and westward migration. One of the objectives of the agricultural revolution which followed was the substitution of livestock growing for cotton planting. The agricultural situation had many of the features which followed the enclosure movement in England more than a century earlier, but perhaps it more nearly resembled the agricultural transition in Rome during the development of latifundia. A study of agricultural changes in various plantation communities of the Lower South between 1840 and 1860 indicates a general tendency of large planters to buy marginal and unimproved land for conversion into ranges for livestock.[1] The so-called agrarian imperialism of this period was both cause and result of this development in livestock farming.

One of the foremost livestock enthusiasts in the ante-bellum South was Richard Peters, an Atlanta real-estate capitalist who owned a 1,500-acre plantation in Oothcaloga Valley in North Georgia.[2] He generously devoted his growing financial resources to the stimulation of Southern livestock

[1] For example, see James C. Bonner, "Profile of a Late Ante-Bellum Community," *American Historical Review*, 49:675 (1944).

[2] Born at Germantown, Pennsylvania, in 1810, he was the grandson of Richard Peters of Belmont, one of the earliest agricultural reformers in the United States. The younger Peters went to Georgia in 1835 as a construction engineer for the Georgia Railroad Company. A keen business man, he used his savings to buy cheap land at strategic locations, operated sawmills, and became one of the wealthiest men in North Georgia. Public spirited and endowed with much practical wisdom, he experimented with various phases of agriculture which he hoped might some day free the South from the one-crop system.

enterprises, and his plantation became a privately operated experiment station for the entire South.[3] He claimed to have experimented with "almost every variety of grass, cattle, horses, sheep, goats, hogs, bees, [and] chickens to be found on the face of the earth" and never to have planted a single acre of cotton. Up to 1883 he had discarded as unsuitable for Southern conditions experimental animals which had cost him approximately $50,000.[4]

Beginning his experiments in 1847, Peters first tried the English breeds of cattle and later turned to the Brahmin cattle of India. Likewise he abandoned English sheep in favor of the Merinos of southern Europe and the African breeds in an attempt to solve acclimatizing problems. It was the paucity of natural grasses in Georgia that led him to an interest in sheep rather than cattle. The ravaging of his flocks by predatory dogs, for which the South was notorious, finally led him to an interest in goats. He discovered that Angora goats were fairly successful in fighting off attacks of dogs, and goats could also be taught to come home at night, thus eliminating the need for shepherds. Consuming herbage refused by other animals, they throve on the hillsides of North Georgia as well as on other scanty grasslands. They covered a wider range than sheep, required less water, and were more prolific. According to his record book, the Angoras increased in number approximately 100 percent yearly, while sheep averaged only 80 percent.[5] On crossing Angoras with common goats he found the flesh of the crosses superior to most of the mutton grown in the South and a valuable addition to the region's meat supply, of which pork was the major item.[6]

Peters was one of the earliest nineteenth-century Angora breeders in the Western Hemisphere.[7] Although the importation of Angora goats was suggested as early as 1828,[8] it was not until 1849 that James B. Davis of South Carolina, an American consul in Turkey, succeeded in shipping nine of the animals to his home. He was assisted in this venture by William Henry Stiles of Cartersville, Georgia, a neighbor of Peters and at the time the United States minister to Austria.[9] The experiment in South Carolina attracted the attention of Peters who subsequently acquired most of Davis' goats. In North Georgia Peters reinvigorated and completed the work begun by the South Carolinian.

Peters himself made two large importations from Asia, but the closely guarded secrets concerning the better Asiatic strains made it difficult for him to secure good breeding animals. Finding that his imported bucks had been rendered sterile by the use of a hot iron rod, he sent to Turkey a Georgian of stern qualities who, after considerable effort, obtained a good buck which decreased the hazards of inbreeding in the Peters flock. However, it is doubtful if he ever secured animals superior to those acquired originally from Davis. These animals, rather than later importations, became the foundation for the improved strain which he developed.[10]

The difficulties of securing good imported stock was in part a result of the haphazard breeding methods practiced by the generality of Turkish owners. Early in the nineteenth century they had begun the crossing of Angora bucks with common Kurd does in an effort to increase mohair-producing flocks and to supply the growing demand

[3]Nellie Peters Black, *Richard Peters, His Ancestors and Descendants*, 16–18 (Atlanta, 1904); Records of Peters Land Company, Atlanta, Georgia, Deeds, Peters' Account Book; Herbert A. Kellar, ed., *Solon Robinson, Pioneer and Agriculturist*, 2:469–470 (Indianapolis, 1936); *Southern Cultivator* (Augusta, Ga.), 14:322 (1856).

[4]Black, *Richard Peters*, 35–43; Records of Peters Land Company.

[5]Black, *Richard Peters*, 27, 47; William L. Black, *A New Industry, or Raising the Angora Goat, and Mohair, for Profit*, 192–193 (Fort Worth, 1900); Nellie Peters Black, Scrapbook.

[6]*Southern Cultivator*, 17:187 (1859), quoting the *New Orleans Picayune*, Mar. 19, 1859.

[7]The breeding of Angora goats for mohair is one of the more recent livestock enterprises in the United States and Canada. The rapid expansion of the industry dates from 1900 when the American Angora Goat Breeders' Association was formed. At present the industry in the United States is confined largely to the Southwest. Up to 1900, when a registry system was established, all improvements in the stock resulted from private breeding and experimentation. W. V. Lambert, "Breeding Problems with Angora Goats," U. S. Dept. of Agriculture, *Yearbook*, 1937, p. 1280.

[8]*American Farmer* (Baltimore), 10:83 (1828).

[9]U. S. Patent Office, *Report*, 1853, pt. 2, *Agriculture*, 20; Black, *A New Industry*, 53.

[10]Black, *A New Industry*, 313; Ralph Peters Black to James C. Bonner, Aug. 19, 1941; Nellie Peters Black, Scrapbook.

for the fleece.[11] Peters concluded that no really purebred Angoras existed at the time Americans began importations. Among those which he brought into the country were some with greasy fleeces which, after washing, proved of mediocre quality. Others were parti-colored, and nearly all possessed a heavy coarse mane along the neck and back.[12]

By selective breeding Peters first undertook to establish what he considered to be a perfect animal. By costly experience he learned that the female characteristics were recessive and subsequently came to rely altogether on thoroughbred bucks. He claimed that it took twenty years to eliminate the coarse mane. He found that the progeny of the so-called full-blooded goats varied greatly and that progress was by no means satisfactory.[13]

Peters demonstrated to the Cotton Belt the falsity of the old adage that one could not go to a goat house for wool. One of his most valuable discoveries was that fleece-bearing animals could be obtained rapidly by crossing thoroughbred bucks with native does. The second cross produced a skin only valued for rugs, mats, and gloves, but the fifth cross, commonly called a full-blood, yielded a fleece comparable in quality to much of the mohair imported from Asia.[14] The wool from the full-bloods averaged 3 pounds per head and brought from 30 to 60 cents a pound.[15]

A vexing problem was the tendency of the goats to shed their fleeces before shearing time which sometimes came as late as June in North Georgia. When not sheared the Angoras usually lost their overcoat of mohair as early as March. Then by July their winter coat began to grow rapidly, continuing until January when it attained its full growth, averaging about 9 inches in length. Peters was never able to overcome this problem completely by selective breeding. However, by taking the goats off the range in January or by placing them in pastures free from briars and underbrush and providing better keep during March and April, he succeeded in preserving the fleeces in good condition.[16]

Peters himself never once contemplated growing mohair. His primary purpose was to develop breeding stock to supply commercial growers and thus stimulate the industry in the South. In this he could claim much success, for most of the flocks in other parts of the country branched from the Peters stock in North Georgia. In 1858, for example, William Haupt secured eight goats from Peters and began the famous Haupt flocks of western Texas.[17] In 1861 the last through train from Atlanta to Saint Louis before the outbreak of hostilities in the West carried two young bucks destined for William M. Landrum of San Joaquin Valley in California. They were taken by steamer from Saint Louis to Fort Leavenworth and thence on foot with a wagon train to the west coast. Shortly after their arrival they won a cup at the California State Fair in September.[18] These goats, and later acquisitions from the Peters flocks, laid the basis for the industry in California.[19] After the Civil War Landrum's goats were shipped to several other Western States. In 1872, for example, Brigham Young secured a small flock from him and undertook to establish the industry among the Mormons of Utah.[20] One of Peters' bucks, Billy Atlanta, sired in all about two thousand kids. In 1876 it was estimated that his blood coursed the veins of more than half the Angora flocks in the southern United States.[21]

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[11]U. S. Dept. of Agriculture, *Yearbook*, 1937, p. 1281.

[12]Black, *Richard Peters*, 41.

[13]*Ibid.*, 41; John L. Hayes, *Sheep Husbandry in the South*, 53–54, 101–102 (Boston 1878).

[14]Richard Peters to John L. Hayes, quoted in Black, *A New Industry*, 177; Nellie Peters Black, Scrapbook.

[15]Nellie Peters Black, Scrapbook.

[16]*Ibid.*; Black, *A New Industry*, 218. The best grade of Georgia Angoras yielded from 5 to 8 pounds of mohair per clip. Goats sent from Georgia to Texas were found to increase slightly in yield. Nellie Peters Black, Scrapbook.

[17]*Southern Cultivator*, 17:187 (2859); Black, *A New Industry*, 110, 314.

[18]*Atlanta Constitution*, Feb. 6, 1889.

[19]Richard Peters to John L. Hayes, Jan. 1, 1878, in Nellie Peters Black, Scrapbook; also Hayes, *Sheep Husbandry in the South*, 99.

[20]Black, *A New Industry*, 79, 92. Landrum moved to California from Forsyth, Georgia, in 1850 and is said to have been among the first American settlers on the west coast to recognize the agricultural possibilities of that region.

[21]Nellie Peters Black, Scrapbook. Peters' buck, Mahomet, was described by Henry W. Grady as follows: "A million debauches have writ their shocking story across his narrow brow. A million wrinkles have furrowed his sensual jaws, and into every wrinkle the ashes of a fierce and irregular life have drifted, dulling its outlines, but deepening its meaning. A dull fatalism burns in his introverted eyes, where once the light of Asia flowed, and Dejection sits listless where Desire once hung its flaunting banners. A wisp of ancient hair, the one sign of a brave gaiety of his

When the Union Army entered North Georgia in 1863, Peters drove his flock to the Florida line where it remained until 1866. It was this flock that gave him courage to attempt the rebuilding of his farm in Oothcaloga Valley which had been devastated by Sherman's invasion.[22] His record book shows that, between the close of the Civil War and his death in 1889, he shipped stock to numerous breeders in various parts of the Union, but principally to buyers in Texas, New Mexico, and Arizona.[23] These States today furnish nearly 90 percent of the Nation's total mohair production.

Eight years after the death of Peters, the last of his flock was sold to J. R. Standley of Platteville, Iowa, whence many later found their way into Canada. Subsequently the industry in Georgia declined rapidly.[24] By 1900 it was estimated that there were probably not more than three hundred Angora goats in the entire State.[25] In 1939 Georgia produced less than a hundred pounds of mohair.

The cause of the rapid decline and virtual abandonment of this industry in Georgia, where most of the primary breeding and pioneer work occurred, has important implications for the problems of livestock production in the southeastern United States during the latter half of the nineteenth century. The failure of the Angora industry in this region can hardly be attributed to soil, climate, or other physical conditions. Peters had stated that his goat experiment proved the most successful of all that he had ever attempted. He insisted that the industry was well suited to Georgia conditions.[26] The excellent quality of his stock had been well demonstrated; his goats won premiums at many local, State, regional, and national fairs, and they commanded the praise of stock breeders and wool merchants throughout the Union. In 1883, Peters claimed to have developed a better quality of Angoras than could be found anywhere in Asia, and this claim was generally substantiated by later breeders.[27] At this time Angoras had been grown successfully in thirteen States east of the Mississippi River, and only the New England region had shown little or no interest in the industry. The failure of the industry in Georgia and the Southeast may be attributed largely to human and economic factors.

A leading Texas breeder, surprised that the industry had died in Georgia, suggested as a cause the impoverishment of the South following the Civil War. John L. Hayes, secretary of the National Association of Wool Manufacturers, also thought that the war had retarded livestock farming in Georgia. Since cotton was in great demand after the blockade and required comparatively little capital in its production, Southerners were inclined to turn their energies again to this crop alone. Also many large estates were broken up into small holdings which were often devoid of a satisfactory range for livestock. These holdings were manned by yeoman farmers and croppers, both black and white, who had neither the skill for livestock enterprises nor the incentive to acquire such skill. The process of upgrading common goats with thoroughbred Angora males required at least five crosses. Since it took six years to produce a marketable quality of mohair, few Southerners had the capital necessary for holding the animals during this period. The only by-product of the upgrading process was the flesh of the animals, for which no market existed in the South. Southerners of both races have always shown a great antipathy for goat flesh as food; sometimes breeders were forced to accept as little as 50 cents a head for these animals.[28]

Since Peters and other Southern breeders sought their profits from the sale of breeding stock rather than from the production of fleece, their animals were often sold in scattered pairs. Hence much of the Southern enterprise devoted to the development of thoroughbred stock was rapidly dissipated, the improved stock becoming hopelessly diffused with the common breed. Only in the Southwest did growers pursue the industry along careful and consistent lines necessary for success.

John Randolph once said that he would walk 10 rods to kick a sheep. He expressed a popular feeling in the Cotton Belt where wool was looked upon as a competitor to cotton. The Southerner's

youth still left, straggles above his brow as funereal moss above a tomb. . . ." *Atlanta Constitution*, Oct. 12, 1884.

[22]Nellie Peters Black, Scrapbook.

[23]Records of Peters Land Company.

[24]Ralph Peters Black to James C. Bonner, Aug. 19, 1941; Black, *A New Industry*, 78, 98.

[25]Black, *A New Industry*, 104; U. S. Dept. of Agriculture, *Yearbook*, 1898, p. 425–426.

[26]Richard Peters to John L. Hayes, Jan. 1, 1848, in Nellie Peters Black, Scrapbook; also Hayes, *Sheep Husbandry in the South*, 99.

[27]Nellie Peters Black, Scrapbook.

[28]Black, *A New Industry*, 63, 109, 114, 203.

zeal in protecting the status of his principal staple and his reluctance to embrace agricultural innovations so alien to the traditions long associated with his economy are also factors which have contributed to the backwardness of livestock industries in the Southeast.

THE SALE AND APPLICATION OF COMMERCIAL FERTILIZERS IN THE SOUTH ATLANTIC STATES TO 1900

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The South Atlantic States have long led the way in the use of commercial fertilizers. This article is concerned with how they were introduced, sold, and applied, and why they were used so extensively. Finally, some of the most significant results of the use of commercial fertilizers in the Southeast will be noted.[1]

The first commercial fertilizer to be used widely in the United States was guano from the arid islands off the coast of Peru. This substance, composed of the excrement of sea birds, was rich in nitrogen and highly stimulating to plant life.[2] The Peruvian guano was first tested in England as a fertilizer for crops about 1840. As a result of the alleged success of guano in England, shipments began to be received in the United States in 1843 with New York and Baltimore as ports of entry.[3] A. B. Allen of New York, agent for Peruvian guano, asserted in 1851 that this fertilizer was first used on the coast of Long Island, New Jersey, Maryland, and Virginia and added: "It is six years since it has been used to any considerable extent in this neighborhood, and its immediate effects are truly wonderful. . . ."[4] From the eastern shores of Maryland and Virginia the use of guano and, to a lesser degree, superphosphate of lime, spread southward into the Carolinas and Georgia.

Interestingly enough, the introduction of Peruvian guano coincided with an agricultural reform movement in the Cotton Belt.[5] During the forties and fifties farmers and planters of the Southeast were casting about for means of restoring worn-out lands and thereby raising agriculture to a more profitable level. Farm journals of the period devoted a great deal of attention to the problem and, incidentally, offered much sound advice which, in the main, was unheeded.[6] Due largely to Edmund Ruffin's emphasis on the use of calcareous manures, many planters of the Coastal Plain, such as James H. Hammond of South Carolina, experimented extensively with lime, plaster or gypsum, and marl with varying results, and in some instances, no doubt, to the detriment of the soil. Domestic manures, such as stable manure and compost, were used with patent benefit to both soil and crops, but the supply of domestic manures was limited. At best, only a few favored acres received the annual accumulation.

[1] This article is a revision of a paper entitled "The Sale and Application of Commercial Fertilizers in the Southeast" that was read at a session of the Southern Historical Association at Atlanta on Nov. 7, 1941. It is also printed in the *Bulletin of Furman University*, 28(3):22–34 (May 1945).

[2] The absence of rainfall served to preserve the nitrogen content of the bird dung. The deposits on the Chincha Islands were the best. Originally, the deposits attained a depth of 50 to 60 feet. *Farmers' Register*, Dec. 31, 1841.

[3] Avery O. Craven, *Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606–1860*, p. 149 (Urbana, Ill., 1926). Other authorities cite a later date. Guano was first used in South Carolina in 1845. See R. H. Taylor, "Commercial Fertilizers in South Carolina," *South Atlantic Quarterly*, 29:179–189 (April 1930).

[4] *Southern Cultivator*, 9:98 (July 1851).

[5] For a discussion of this movement, see James C. Bonner, "Genesis of Agricultural Reform in the Cotton Belt," *Journal of Southern History*, 9:475–500 (November 1943).

[6] James H. Hammond to Edmund Ruffin, Silver Bluff, S. C., July 22, 1846, in Hammond-Ruffin Correspondence, Southern Historical Collection, Chapel Hill, N. C. Hammond stated: "Not one farmer in ten reads an agricultural paper or believes there is any informational farming of real value."

Intelligent planters realized that leguminous plants would enrich the soil with nitrogen, but they seldom systematically turned this knowledge to account. The majority of farmers and planters, following an inherited but wasteful pattern, preferred to let old fields rest and to clear new fields which were cultivated until exhausted. The land-killing methods of agriculture posed a pressing problem. The sight of worn-out lands seamed with deep and tortuous gullies, of barren acres under cultivation, of neighbors moving west, coupled with the prospect of clearing and exhausting the remaining virgin soils, arrested the attention of all but the most myopic tillers of the soil. Could not some speedy remedy be applied? Perhaps guano might be the panacea needed. Practically everyone who experimented with Peruvian guano acknowledged that under favorable circumstances it increased yields. There was considerable doubt as to whether the guano actually restored the fertility of the soil; and it was also doubtful whether increased yields were not more than offset by the cost of the fertilizer,[7] which was roundly $60 per long ton plus the cost of transportation from the port of entry.

Daniel Lee, editor of the *Southern Cultivator*, announced editorially that the farmers of Georgia should use more guano rather than invest their money in more Negroes "the sooner to impoverish the best arable lands of the sunny South."[8] A hope was kindled in the hearts of despondent Southern agriculturists; hence, experiments with Peruvian guano were watched with more than casual interest. Editors of agricultural papers recieved numerous inquiries as to how the guano could be obtained and at what price. The columns of agricultural periodicals were opened freely for the publication of the results of guano experiments.[9] William Allbright of Sandy Grove, North Carolina, was so pleased with the results obtained from the trial of guano that he asserted a man could make a fortune by the use of guano on poor lands sooner than he could by clearing new land. Not all users were so sanguine. A note of skepticism and caution was sounded from time to time. For example, Thomas A. P. C. Jones of Fairfax County, Virginia, warned that the repeated use of Peruvian guano would render the land worthless.[10]

At first guano was broadcast cautiously on oats and wheat, and subsequently it was sown in the drill under cotton and tobacco. When ignorance as to the proper mode of application was gradually dissipated, results were more uniform and promising. By 1860 there was general agreement that guano should be used with plaster to fix the ammonia, that it required moisture for the best results, and that it did not pay on poor land. There was yet much speculation as to whether guano permanently restored the fertility of worn-out lands.[11]

Probably no planter in the Southeast was better or more favorably known than David Dickson of Sparta, Georgia. This successful planter was an enthusiastic advocate of the use of artificial fertilizers, including the superphosphates which made their appearance as a commercial article about 1854.[12] Dickson frequently published the results of his experiments in Southern agricultural journals and by so doing served to advertise and to popularize artificial manures. Another planter whose experiments attracted favorable attention was John S. Dancy of Edgecombe County, North Carolina. On his plantation, Panola, Dancy used successfully guano mixed with compost. He was given credit for demonstrating that it was cheaper to manure old lands with compost mixed with guano than to clear new fields.[13]

Despite a difference of opinion as to the wisdom of using guano and other artificial manures, the volume purchased constantly increased. In fact, the supply was never equal to the demand. No doubt the use of commercial fertilizers would have become general before the Civil War had they

[7] *Southern Cultivator*, 11:309 (October 1853).

[8] *Ibid.*, 11:329 (November 1853).

[9] *Ibid.*, 11:138 (April 1853); *Southern Agriculturist*, August 1853; *Farmer's Journal* (Bath, N. C.), 1:170–175 (September 1852).

[10] *Farmer's Journal* (Raleigh, N. C.), 3:52, 56 (May 1854).

[11] Charles Colby in *The Soil of the South*, 5:297 (October 1855); Joseph Jones, *First Report to the Cotton Planters' Convention of Georgia, on the Agricultural Resources of Georgia*, 74–75 (Augusta, Ga., 1860).

[12] Superphosphates were originally made by treating bones of animals with sulphuric acid. The same procedure was subsequently applied in the manufacture of South Carolina phosphates from phosphatic rocks.

[13] N. T. Sorsby, "Farming on Tar River," *The Soil of the South*, 4:325–327 (November 1854). Neither Dickson nor Dancy relied solely on commercial fertilizers.

been more reasonably priced and more accessible.[14] As a result of the war no commercial fertilizers were available south of Maryland from 1862 to 1865.[15]

After the war a variety of factors obtained which greatly accelerated the manufacture, sale, and use of commercial fertilizers in the Southeast. The first factor to be noted is that farm lands, as a result of comparative neglect during the war, had suffered a further decline in productivity. In the second place, there was neither capital nor labor at hand for clearing new fields on a scale comparable with that which obtained in the prewar period. Old fields must be cultivated and made to pay. In the third place, difficulty of obtaining credit for supplies and farm machinery virtually forced the farmers to plant market crops to the exclusion of small grains and truck in order to secure credit with the time-merchant.[16] Market crops required fertilization for the best results.

With factorage on the wane, the time-merchant came to play an increasingly important role in the postwar economy. To him, farmers must go, hat in hand, to solicit the privilege of buying supplies on time. Secured by means of mortgages and crop liens, the realistic time-merchant, with a stake in the crop, largely prescribed the pattern of Southern agriculture. For meager supplies advanced while the crop was under cultivation this parvenu in Southern society used the leverage he exercised to require farmers to plant cotton or other crops which could be converted readily into cash for the payment of charge accounts in the fall. It follows, therefore, that the depleted condition of farm lands, the scarcity of capital, the unreliability and cost of labor, and the premium on market crops offered in return for credit, greatly intensified and even justified the demand for commercial fertilizers. The needs of farmers were immediate. Under such circumstances, a live-at-home economy was not feasible. Farmers without capital or long-term credits were in no position to follow a long-range program of soil improvement. Deep plowing, crop rotation, cover crops, and use of domestic manures as advocated by exponents of scientific farming were admittedly beneficial, but these measures did not assure immediate results. Debts must be paid at the end of the year. The outlook, therefore, appeared decidedly promising for the prompt-acting artificial manures.

To meet the growing demand for commercial fertilizers in the Southeast, the fertilizer industry began to move southward. Fertilizer factories sprang up at Norfolk, Richmond,[17] Wilmington, Augusta, Charleston, and other smaller centers. Fertilizer companies selected reliable mercantile firms and commission merchants to serve as agents for the sale of the fertilizers. There were general and subagencies. For example, J. N. Robson of Charleston was in 1870–72 general agent for the sale of Soluble Pacific Guano in South Carolina, North Carolina, and Georgia.[18] Robson established numerous subagencies in these States and supplied them with Soluble Pacific for sale on commission to the farmers. The commission allowed the local agents by Robson was $5 a ton.[19] Some of the fertilizer companies apparently allowed a commission of 10 percent. C. E. Leopart of Lexington, South Carolina, in applying for the local agency for the sale of Soluble Pacific Guano, alleged that he was agent for Wando Guano and that he had never sold guano for less than 10 percent.[20] In consigning fertilizers to local agents, Robson required agents, when selling for credit, to protect him by receiving in exchange for the goods crop liens, negotiable notes, payable in November, and on occasion cotton at a designated price per pound.[21]

[14] In Georgia, the Central of Georgia Railway, in order to promote the use of commercial fertilizers, made a flat rate of $2 per ton on all manures hauled in carload lots over its lines. See Ralph B. Flanders, *Plantation Slavery in Georgia*, 93 (Chapel Hill, 1933).

[15] Imported fertilizers were doubtless difficult to obtain in 1861. R. M. Stokes & Co., of Columbia, S. C., notified the planters of the Confederacy that they would sell the Southern Compound Fertilizer, made entirely from ingredients obtained in the South at $45 a ton, available Sept. 5. The Laurensville (S. C.) *Herald*, Aug. 23, 1861.

[16] Robert Preston Brooks, *The Agrarian Revolution in Georgia, 1865–1912*, p. 34 (Madison, Wis., 1914).

[17] The number of fertilizer factories in Virginia increased from 25 in 1891 to 31 in 1893. Virginia State Board of Agriculture, *Report*, 1891, p. 12; and 1893, p. 167.

[18] Robson Papers, in the Flowers Collection, Duke University.

[19] T. A. Hudgens to J. N. Robson, Honea Path, S. C., Jan. 15, 1872, in Robson Papers.

[20] C. E. Leopart to J. N. Robson, Lexington, S. C., Mar. 11, 1873, in Robson Papers.

[21] MSS. in Robson Papers, 1882.

The mercantile firm of Pulliam and Connolly of Leasburg, North Carolina, served as agents for several fertilizer companies, including the Southern Fertilizer Company and Allison and Addison of Richmond. These merchants were obligated to pay the fertilizer companies for fertilizers received, but payment could be made in farmers' notes endorsed by Pulliam and Connolly, payable usually in November. For instance, T. De C. Ruth, Jr., of Baltimore, in soliciting Pulliam and Connolly to serve as agents for Giant Phosphate, offered to furnish the Leasburg firm fertilizers at "$40 a ton net to me." Final settlement was to be made in May 1877, "by you paying over to me the notes or drafts of the farmers drawn in proper form, endorsed or accepted by you and payable at some bank and maturing not later than Nov. and Dec., 1877."[22] Many fertilizer companies refused to consign fertilizers. For example, Hill and Skinker, commission merchants of Richmond, informed Pulliam and Connolly that all guano ordered was considered sold. These merchants required agents to guarantee payment.[23]

W. T. Pugh, a time-merchant of Charlotte County, Virginia, began selling commercial fertilizers on commission about 1880 by taking farmers' notes in payment. At the same time, along with other time-merchants, he furnished farmers with supplies and took a lien on the debtor's crop to secure payment. In Pugh's contract with James T. Crowley, it was stipulated that Crowley's guano note for $50 was to be paid first. The next $75 derived from the sale of tobacco was to go to merchant Pugh, and the remainder to James T. Crowley.[24] In selling guano for John S. Reese and Company, Pugh used a standard contract in which it was set forth that the purchaser of the fertilizer waived the homestead exemption on the debt, and the lessor of the land waived his rights in favor of the fertilizer company.[25]

Editors of agricultural journals and certain debt-ridden farmers continually raised their voices in protest against the mania for commercial fertilizers, pointing out that it was much more profitable to plant cover crops, to practice crop rotation, and to use domestic manures such as compost and stable manure. When Governor Scales of North Carolina, in addressing the legislature, stated that " 'Our lands; much exhausted, as the result of slave labor demanded strong and stimulating fertilizers,' " the editor of the *Progressive Farmer* denounced the theory as fallacious. He contended that the acceptance of this theory had cost the farmers of North Carolina "millions and millions of dollars—and well-nigh bankrupted everyone who has relied on it."[26]

Farmers, however, were disposed to follow the line of least resistance. Croppers had very little opportunity to assemble manure. The rakings and scrapings did not produce much increase in yield.[27] In favorable seasons the results from the use of commercial fertilizers on good land were obvious; hence, not only croppers but people who owned and cultivated their land found it much easier to buy several hundred pounds of prepared fertilizers on credit than "to devise and execute plans for making and saving manure."[28]

About the turn of the century when Southern farmers once more enjoyed a measure of prosperity, there was a sharp increase in the volume of fertilizers sold. In North Carolina, for example, 214,371 tons of fertilizers were sold in 1897; whereas in 1902 the total tonnage sold reached 330,714 tons, showing an increase in 6 years of over 50 percent.[29] Conceding that commercial fertilizers were necessary for the profitable production of tobacco, peanuts, truck, and cotton in Virginia, the Commissioner of Agriculture of Virginia estimated that 114,119 tons had been sold and used in Virginia in 1891. By 1899 the total tonnage was around 225,000 and the annual expenditure for fertilizers in excess of $4,000,000.[30] In no

[22] T. De C. Ruth, Jr., to Pulliam and Connolly, Baltimore, Jan. 13, 1877, in Pulliam Connolly Papers (Flowers Collection), Duke University.

[23] Hill and Skinker to Pulliam and Connolly, Richmond, Feb. 17, 1876, in Pulliam Connolly Papers.

[24] Pugh Store Records, 1822–1904, in the University of Virginia Library. Contract dated Feb. 22, 1878.

[25] *Ibid.* Item dated May 15, 1880, binding D. W. Harvey to pay to John S. Reese & Co. for value received in fertilizers "twenty-five dollars, payable at Farmers & Merchants Savings Bank at Pamplin."

[26] *Progressive Farmer* (Winston, N. C.), 1(49):4 (Jan. 19, 1887).

[27] Stable manure, of which there was not a great deal, was regarded as a complete fertilizer for most purposes. See Virginia Commissioner of Agriculture, *Annual Report*, 1877, p. 8.

[28] See James N. Bethune of Fauquier County, Va., "Fertilizers, Tariffs, &c.," *Southern Planter and Farmer*, 40:357–360 (July 1879).

[29] North Carolina Commissioner of Agriculture, *Report*, 1902, p. 3.

[30] Virginia State Board of Agriculture, *Report*, 1891, p. 12; 1899, p. 8.

section of the United States were the manipulated fertilizers used so extensively as in the South Atlantic States. Statistics in the reports of the Twelfth Census of the United States reveal that in 1899 Georgia was spending $5,738,520 annually on fertilizers with South Carolina and North Carolina nearly tied for second place. "The smallest farms had, however, the highest average expenditures per acre and the largest farms the lowest." It is also pertinent to note that the average expenditure per acre was greater for share and cash tenants than "for farms of part owners and managers."[31]

In order to protect the farmers of the Southeast against the purchase of fraudulent and adulterated fertilizers, legislatures belatedly passed laws requiring manufacturers to obtain a license for the privilege of selling fertilizers.[32] Each bag offered for sale had to bear a tag carrying the name of the manufacturer and a true analysis of the contents.[33] All the States employed chemists to analyze fertilizers and chemicals offered for sale or distribution. In South Carolina, when an analysis revealed that a certain brand of fertilizer did not contain the ingredients and percentages set forth on the tag or bag, the chemist was authorized to seize and condemn the fraudulent goods.[34] The Virginia law was less exacting and satisfactory. There the manufacturers were required to furnish the Commissioner of Agriculture with a fair sample of every brand of fertilizer to be sold in the State. If, after analysis, the Commissioner found the fertilizer "of no practical value," he was to give the manufacturer an opportunity of "correcting any injustice which may have been done to them by mistake, accident, or other wise." If, still, the brand was found to have "no practical value," its sale was to be prohibited.[35] Under this law, the Commissioner of Agriculture did not select the samples to be analyzed or affix tags to the bags. He frequently complained that funds were inadequate to provide for analysis of more than one-half of the fertilizers sold in the State. Other States, he alleged, had supported their agricultural departments by levying a tax on fertilizers. Georgia, for example, charged 50 cents on each ton of fertilizers inspected in the State, from which a revenue of $50,000 was derived annually. North Carolina imposed a tax of $500 on each brand of fertilizer sold in the State; while South Carolina imposed a tax of 25 cents on each ton of fertilizer "introduced or manufactured in the State."[36]

While the inspectors in Virginia found few cases of deliberate attempts on the part of the manufacturers to defraud the public,[37] inspectors in North Carolina found numerous instances of misrepresentation. As a result of the enforcement of the fertilizer inspection laws in North Carolina in 1887, 80 of the 125 brands of fertilizers offered for sale in the State were driven from the market and the remainder greatly improved in quality.[38]

That commercial fertilizers increased yields on good land, the seasons being favorable, was generally conceded. The principal problems for the farmer to solve were the kinds of fertilizers and the quantities to use.

After the Civil War Peruvian guano declined in quality but not in price.[39] It was also deficient in phosphoric acid and potash. In view of these circumstances, manufacturers and farmers began to cast about for a more complete and cheaper artificial fertilizer. Experiments were expedited through the contributions of G. A. Liebig, a Baltimore chemist, and Georges Ville of France, who wrote a series of articles on the "complete fertilizer" in 1870–71. The "complete fertilizer," according to Ville, was a manure which would at once supply all the essential plant needs in avail-

[31] U. S. Census Office, 12th Census, 1900, *Agriculture*, 1:cxlii.

[32] North Carolina, *Laws and Resolutions. . .*, 1876–77, p. 510–511.

[33] South Carolina, *Statutes at Large . . .1878*, 16:409–410. The analysis might appear on the bag. The Georgia law required that the analysis be branded on the bag. See Georgia, *Acts and Resolutions of the General Assembly. . .*, 1870, p. 399–400.

[34] South Carolina Commissioner of Agriculture, *Annual Report*, 1881, p. 6.

[35] Virginia Commissioner of Agriculture, *Annual Report*, 1877, p. 2.

[36] *Ibid.*, 1881, p. 1. The Virginia law was changed in 1890 to provide for a small tax of $10 per brand on fertilizers sold in the State. See *ibid.*, 1899, p. 8. Fertilizer companies complained heavily of the North Carolina inspection law. *Progressive Farmer* (Raleigh, N. C.), 5(5):2(Mar. 11, 1890).

[37] Virginia Commissioner of Agriculture, *Annual Report*, 1885, p. 8.

[38] Report of the director of the North Carolina Experiment Station, published in the *Progressive Farmer* (Raleigh, N. C.), 2(50):6(Feb. 9, 1888).

[39] *Rural Carolinian* (Charleston, S. C.), 4:591–592 (August 1873). Peruvian guano was quoted at $60 to $70 per ton.

able ammonia, phosphoric acid, and potash and, at the same time, restore to the soil all the elements absorbed by the growing crops. Experiments led to the manufacture of a fertilizer which usually contained 2½ to 3 percent ammonia, 9 to 10 percent phosphoric acid, and 1½ to 2 percent potash in a filler of sands, cinders, ground rock, or ground slate. The available ammonia stimulated the growth of the weed, potash imparted strength to the plant and prevented rust, while phosphoric acid increased yields.[40]

Obviously, the "complete fertilizer" was not suited to all soils, some of which were deficient in potash but not in nitrogen or phosphoric acid. Would it not be the part of wisdom to have an agricultural chemist make a soil analysis and prescribe just what chemicals were needed to meet the deficiency? State chemists made such analyses and indicated broadly to the owners of the soil what sort of plant food was needed. Many farmers did not know how to profit by a soil analysis, but many of those who were considered sufficiently intelligent to do so, found that the prescription of the chemist was not the final answer. A farmer could never be sure that he was using the best mixture. There were too many variables, such as soil composition, rainfall, and plant needs to insure a perfect formula.[41]

While the so-called "complete fertilizers" were sold in large quantities, other manipulated fertilizers containing acid phosphate compounded with potash, or acid phosphate and kainite, a commercial product containing about 16 percent potash, alone were applied to crops with varying degrees of success. During the eighties nitrate of soda came to be used increasingly as a top dressing for a variety of crops. Ground bone, containing both nitrogen and phosphoric acid, was much esteemed; while cottonseed meal containing nitrogen, phosphoric acid, and potash enjoyed a wide vogue as a virtually complete fertilizer.

During 1873–1886 the University of Virginia had an experimental farm on which a variety of experiments with commercial fertilizers were conducted with the object of ascertaining formulas that were best adapted to certain crops. While these experiments were conducted with great care and the results were recorded, one cannot be sure from a study of the records that a certain brand of fertilizer was better for tobacco or wheat than any one of several others.[42] In view of the varying results obtained with different brands of fertilizer on different soils, farmers were urged to conduct their own experiments in order to find the formulas which produced the best results, always bearing in mind that some crops require more potash, some more nitrogen, and others more phosphoric acid.[43]

Farmers who elected to manipulate their own fertilizers commonly mixed 200 pounds of phosphoric acid,[44] 100 pounds of cottonseed meal, and 100 pounds of kainite to serve as a complete fertilizer for cotton.[45] Such a formula, with one exception, carried the endorsement of H. B. Battle, director of the North Carolina Agricultural Experiment Station. He suggested the use of 50 pounds of kainite instead of 100.[46]

As to the quantity of fertilizer per acre, there was variation in practice. The kind of crop, quality of the soil, and other factors determined the amount. Bottom lands were generally ditched, and planted in corn without fertilizers. In fact, corn wherever planted, received little artificial fertilization. Not half the corn grown in Virginia

[40] *Ibid.*, 4 :301–302 (March 1873); *Southern Cultivator and Dixie Farmer*, Sept. 1, 1898, 60(23):1 (Dec. 1, 1902).

[41] South Carolina Board of Agriculture, *Annual Report*, 1890, p. 69. The Virginia Department of Agriculture did not encourage soil analysis because the chemist could not tell how available the fertilizing ingredients found in the soil are to plants. Virginia State Board of Agriculture, *Report*, 1891, p. 65.

[42] University of Virginia Farm Journals, 1873–1886, in the University of Virginia Library.

[43] Virginia Commissioner of Agriculture, *Annual Report*, 1880, p. 114.

[44] Beginning about 1867, the supply of phosphatic fertilizers was steadily augmented as a result of the development of phosphate mines in eastern South Carolina. The South Carolina phosphates were widely used separately and in conjunction with other preparations, appreciably reducing the price of phosphatic fertilizers. The superphosphates manufactured from South Carolina rock contained from 9½ to 15½ percent soluble phosphoric acid. See South Carolina Commissioner of Agriculture, *Annual Report*, 1880, p. 114. For further information concerning the South Carolina phosphates, see H. W. Wiley, "Mineral Phosphates as Fertilizers," U. S. Dept. of Agriculture, *Yearbook* 1894, p. 177–192.

[45] *Southern Cultivator and Dixie Farmer*, 60(2) :10 (Jan. 15, 1902).

[46] *Progressive Farmer* (Raleigh, N. C.), 5(22) :1 (July 8, 1890).

received manure of any kind in 1880.[47] Prior to the Civil War, Peruvian guano was used experimentally on wheat in North Carolina and Virginia.[48] After the war, not many farmers felt that they could afford to purchase expensive artificial compounds for application to grain and cover crops.

For cotton, commercial fertilizers were sown in the drill at the rate of 200 to 300 pounds per acre. For the successful growth of tobacco, a heavier application was required. In the eighties and nineties, farmers used from 400 to 500 pounds per acre in the drill.[49] This modest amount was gradually increased, until today 1,000 to 1,200 pounds per acre is the general rule. In the trucking areas around Charleston, New Bern, and Norfolk stable manure was used almost exclusively until the scale of operation overreached supply; whereupon the artificial fertilizers came to be used extensively with gratifying results.[50]

Due to the sadly exhausted and eroded state of the soils and to the emphasis on cash crops and quick returns, the use of commercial fertilizers in the South Atlantic States became general by the turn of the century. A few farmers, following a primitive practice, declined to use them consistently, but the generality of the farmers regularly placed their orders with the fertilizer agent.

The most significant results of the general use of commercial fertilizers in the Southeast may now be briefly noted. In the first place, the general use of commercial fertilizers resulted in the extension of the cotton and tobacco belts. The spread of cotton culture was especially noticeable in the wire-grass country of Georgia and in the piedmont of the Carolinas.[51] According to the director of the North Carolina Agricultural Experiment Station, cotton production more than doubled in the State between 1870 and 1880. "With the aid of the superphosphates," he wrote, "cotton has extended its domain forty or fifty miles up the slopes of the Blue Ridge and northward across the Virginia line . . . ." In the extension of the tobacco belt into eastern North Carolina in the postwar period, the use of commercial fertilizers was strongly indicated. Without commercial fertilizers, tobacco could not have been extensively and profitably grown.[52]

Farmers gradually abandoned the cultivation of alluvial lands which required ditching for drainage. It was obviously more convenient to fertilize old upland fields than to hire laborers for ditching and clearing.

After commercial fertilizers became generally available, farmers neglected to use home-made manures except those which accumulated in the stables and cattle pens. The compost heap, which farmers once prepared with great care and skill, disappeared about 1900.[53]

Commercial fertilizers lent considerable impetus to intensive farming, particularly in the trucking areas. Since the breakdown of the plantation system and the rapid spread of farm tenancy resulted in smaller units of production, there was a clear need of larger yields per acre. The liberal use of commercial fertilizers insured such yields.

Lastly, commercial fertilizers were responsible for bringing the fertilizer industry to the South, and for the development of the phosphate mines of South Carolina, Florida, and Tennessee.

While commercial fertilizers did not produce an agricultural revolution in the Southeast, and while they doubtless retarded the development of a more lasting and scientific program of soil improvement, when used judiciously, they contributed much to the viability of agriculture during the lean years of the eighties and nineties. In consideration of the run-down condition of the farms and plantations, the emphasis on market crops, scarcity of labor and capital, and the general ignorance and apathy of the people, it is appalling to think of what the state of agriculture might have been without the artificial manures.

[47] U. S. Census Office, 10th Census, 1880, vol. 3, *Report on the Productions of Agriculture*, "Report on the Cereal Production of the United States," 98.

[48] Seward Farm Journal, 1854–1888, May 16, 1854, July 27, 1855, in the University of Virginia Library. See also the *Farmer's Journal*, 3 :52, 54–58 (May 1854).

[49] *Southern Planter and Farmer*, 41 :15–16 (January 1880). Pugh Store Records, 1882–1904, rental contract between B. L. Jordan and E. R. Bolling dated Aug. 24, 1901.

[50] *American Farmer* (n.s.), 4 :17–18 (January 1875); Taylor, "Commercial Fertilizers in South Carolina," 188.

[51] Brooks, *The Agrarian Revolution in Georgia*, 104.

[52] North Carolina Board of Agriculture, *Report*, 1883, p. 43–44.

[53] *Southern Cultivator and Dixie Farmer*, Dec. 1, 1899.

THE THEORY OF THE AGRICULTURAL LADDER

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In English literature, the concept of the agricultural ladder is very old.[1] It can be traced back to the time of the open-field system in the Middle Ages. The term was probably first brought out by Arthur Young, but it was not in popular use until the beginning of the twentieth century. In 1885, according to C. S. Orwin, Joseph Chamberlain based no small part of his advocacy of small holdings upon the need for an "agricultural ladder." The content of this term is thus described: "From wage labour the rural worker was to enter upon a small holding; from this he should migrate to a larger one, and so on until he became himself a considerable farmer and an employer of labour."[2] However, the term itself became current only in 1908, when the Small Holdings and Allotments Act was debated and passed in the British Parliament.

In the United States it is still unknown how far back the embryonic concept of the agricultural ladder can be traced, but it must be quite old. The term seems to have been brought out in 1917. In July of that year, H. C. Taylor adopted the term and exhibited by a lantern slide a cartoon illustrating the climbing of the agricultural ladder.[3] In December of the same year, W. J. Spillman mentioned the term in a paper which attracted little attention from the public.[4] In the next year, he adopted both the concept and the term in the title of a remarkable paper which he read before a meeting of the American Economic Association.[5] Prior to this time, many agricultural economists may have mentioned the term verbally, but it would seem that they did not use it in their writings. Other terms with approximately the same meaning such as "the normal course," "the normal route," and "the stepping stone" had been in use for a long time.[6]

In the same meeting at which Spillman first introduced the term, Richard T. Ely filled it with meaning and defined it. In outlining his views, he said:

> Tenancy is also a good thing when it represents a rung in the agricultural ladder and means a step upward in the winning of a competency. Sometimes and frequently a man begins as an agricultural laborer, saves money enough to become a tenant, then through tenancy acquires enough to purchase a farm, gives back a mortgage and gradually pays for this mortgage.[7]

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[1] This article is a redaction of a section of a thesis submitted at the University of Wisconsin in 1938. The author taught in the department of sociology in the National Southwest Associated University at Kunming for five years. He has been engaged in special research studies at the University of Maryland since September 1945.—*Editor.*

[2] C. S. Orwin and W. F. Darke, *Back to the Land*, 19 (London, 1935).

[3] In a letter to the writer in August 1938, Dr. Taylor said: "In looking over my writings, I find that in a lecture which I gave in July, 1917, at the Texas Agricultural College, I not only used the phrase but exhibited by a lantern slide a cartoon illustrating the climbing of the agricultural ladder. The cartoon was made by somebody in the publicity division of the college at my request, but he used a series of ladders, going from stage to stage, whereas when I asked him to make it, I had in mind one ladder with a series of rungs. This cartoon was published by the Texas Agricultural College in the proceedings of their Eighth Annual Farmers Short Course."

[4] W. J. Spillman, "Work of the Office of Farm Management Relating to Land Classification and Land Tenure," a paper read before a joint session of the American Economic Association and the American Farm Management Association at Philadelphia on Dec. 27, 1917. The version in the American Farm Management Association, *Proceedings*, December 1917, p. 40–46, does not contain the term. The version in the *American Economic Review Supplement*, March 1918, p. 65–71, includes the term and also additional data.

[5] W. J. Spillman, "The Agricultural Ladder," *American Economic Review Supplement*, March 1919, p. 170–179.

[6] Cf. E. H. Thomson, "Gaining a Foothold on the Land," American Farm Management Association, *Proceedings*, August 1915, p. 34–39; Spillman, "Work of the Office of Farm Management. . . ."

[7] Richard T. Ely and Charles J. Galpin, "Tenancy in an Ideal System of Landownership," *American Economic Review Supplement*, March 1919, p. 185.

No matter how insufficient and vague this statement may be, it is the first definition of the agricultural ladder to appear in the pertinent literature of the United States.

Later writers developed different opinions from the original concept of the agricultural ladder in relation to farm land tenure. There is a good summary by Wilson Gee.

> The theory of the agricultural ladder postulates that the typical farmer begins his career as a farm laborer, working for wages on his father's or some one else's farm; that after he has saved enough working capital to operate his own farm, he takes the next step on the agricultural ladder, and becomes a farm tenant; and that successfully operating as a tenant, he acquires sufficient capital to buy his own farm, then stepping up to the estate of a farm owner. In the progress he serves a sort of apprenticeship as it were, gaining desirable experience in handling a farm.[8]

This has long been regarded as the orthodox view of the theory of the agricultural ladder despite the fact that the still higher stage of the retired farmer or landlord was omitted.

Other writers have approached the subject from varied points of view and given various aspects different emphasis. George S. Wehrwein ascertained this matter in connection with the ideal system of the farm land tenure. He said:

> In theory, there is an ideal system of tenure based on the agricultural ladder. In this system, there is a normal flow of men from the lower stages to the higher. At any given time, a certain proportion of farmers will be found in the hired man stage, a given percentage will be tenants, another encumbered owners, and so on. This is what is implied by the phrase "normal percentage of tenancy."[9]

No doubt, there are many other writers holding opinions different from this.[10]

It may be of interest to note how the agricultural economists and rural sociologists outside the United States approach the subject. A passage in a publication of the International Labour Office reads:

> The "agricultural ladder" is . . .a phrase describing the opportunities of the worker originally working for wages to become the owner of his own tools of production and means of subsistence, to live . . .on his own homestead, owning his own land, animals and machinery, and able to bequeath all this to his heirs, or, if he prefer it, able to hand all over during his lifetime and retire from "business" to leisured comfort in the nearest town.[11]

A. W. Ashby of the University College of Wales has given another interpretation based on the background of England and Wales.

> There is a good deal of confusion in these ideas and suggestions; but, most important in Great Britain, there is no clear realisation that all the suggestions of "an agricultural ladder", whether it exists or whether it should be made, imply an age-ladder. In effect, the young man will start as an employee, for no one apparently suggests that a class of temporary employees, at least, is unnecessary or undesirable. At a later stage he will become a small farmer of the status of tenant, and then he may change his property status and become an owner; or change his industrial status and become an employer on a larger farm. Then if he is particularly fortunate, or peculiarly efficient, he may change his property status and become the owner of a large farm. But all these changes will tend to occur at different stages in the life of the individual. He will be older as he makes each change. Individual climbers will make different rates of progress and arrive at the various stages at different ages according to their personal capacities and the economic advantages or handicaps with which they start. Eventually, individuals will arrive and stop at different steps in the ladder. While one may climb with difficulty on to the first step, another will proceed apace to the highest rung.[12]

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[8] Wilson Gee, *The Social Economics of Agriculture*, 159 (New York, 1932).

[9] George S. Wehrwein, "The Problem of Inheritance in American Land Tenure," *Journal of Farm Economics*, 9:163 (April 1927). See also his article, "The Institute's Study of Land Tenure," *Journal of Land & Public Utility Economics*, 3:289 (August 1927).

[10] See George H. Von Tungeln, "Some Observations on the So-Called Agricultural Ladder," *Journal of Farm Economics*, 9:94–106 (January 1927); William Ten Haken, "Land Tenure in Walnut Grove Township, Knox County, Illinois," *Journal of Land & Public Utility Economics*, 4:13–24 (February 1928); Horace Boies Hawthorn, *The Sociology of Rural Life*, 233 (New York, 1926); John D. Black and R. H. Allen, "The Growth of Farm Tenancy in the United States," *Quarterly Journal of Economics*, 51:407–417 (May 1937).

[11] International Labour Office, "The Agricultural Ladder in the United States," *Industrial and Labour Information*, 14(4):124 (Apr. 27, 1925).

[12] A. W. Ashby and J. Llefelys Davies, "The Agricultural Ladder and the Age of Farmers," *Welsh Journal of Agriculture*, 6:7–8 (January 1930).

From the illustrations and interpretations of the theory of the agricultural ladder cited above, it is obvious that the subject comprises a number of aspects. Besides the fundamental notion pointed out by all the writers, there are minor points stressed by some but omitted by others. Gee has emphasized that the individual climber gains "desirable experience in handling a farm" in the process of climbing. The interpretation by the editor of the International Labour Office already quoted puts stress not only on the composition of the ladder but also on the opportunities of climbing. Wehrwein's theory, as derived from the concept of Ely, implies the "normal percentage of tenancy" which is regarded as an ideal system of land tenure. Ashby's emphasis is upon the life career of individual farmers, or, in other words, an age ladder, but his view goes one step farther to embrace both the economic and social implications, *i.e.*, the economic advantages or handicaps and the personal capacities of the individual climbers. In view of the internal and external differences, the individual, therefore, will inevitably arrive and stop at different steps on the ladder.

Although we have mentioned many of the theories of the agricultural ladder, we are not yet in a position to understand the subject substantially. We know that the term is nothing more than a simile. We know also that all authors mean "the ladder of advancement on which a man climbs from the position of hired worker to the position of tenant, and again from that of tenant to the rights of a freeholder of his own farm."[13] However, we have to consider that there must be ladders which are not suitable for climbing; the rungs may be too high or too low; again, there must be farmers who, due to mental or physical deficiency, are incapable of climbing ladders. If we take the term as a simile in dealing with the problems of land tenure, two factors should be kept clearly in mind. One is a human factor and the other a social factor. The first is *the mobility of the farming population*, and the other, *the structure of the agricultural community*. The simile connotes both of these implications.

Let us now portray a new picture of the agricultural ladder. According to Wehrwein, "there is a normal flow of men from the lower stages to the higher." The flow of men indicates that the farmers climb the ladder, and the different stages are the rungs of the ladder. Apparently the former would be equivalent to *the mobility of the agricultural population* and the latter, *the structure of the agricultural society*.

By the structure of the agricultural society, we mean the castes, estates, classes, or even stepping stones contained in the form of a ladder. Wehrwein, the foremost authority on the subject, once gave a good analysis of the structure. "A land tenure system," he wrote, "embraces not only the tenants but men in all other stages along the road to ownership. In agriculture, we distinguish the hired man, the cropper and tenant, the encumbered owner, the 'free' owner, and finally the retired farmer who is often a landlord."[14] These are the names of the categories of men belonging to the different rungs of the agricultural ladder or to the castes or classes of an agricultural society.

Now let us state the meaning of the second term, the mobility of the agricultural population. "By the word 'mobility'," as defined by Mrs. Louise E. Howard, "is meant (*a*) entry into the farming class, (*b*) exit from the farming class, (*c*) movement within the farming class from worker to tenant or tenant to owner, &c., both upwards (the 'ladder') or downwards (failure and bankruptcy), and, finally, (*d*) transference from one holding to another especially from smaller to larger or vice versa. . . ."[15] In this study we shall emphasize item c more than any of the others.

The mobility of the agricultural people is inevitably conditioned by the structure of the society as the two are closely interrelated. Different types of agricultural society have different forms of mobility. In sociology, there is *the dynamic society*. The majority in such a society enjoy an equal chance to get an education, to choose an occupation, and to climb to a competent social position according to ability. Inheritance has no or little influence on men's careers. In agriculture, a young recruit farm worker can enter the farming business with an empty hand and climb from the status of a hired laborer to that of a tenant, and again from the status of a tenant to a free holder of his own farm, provided, of course, he is fortunate

[13] International Labour Office, "The Agricultural Ladder in the United States," *Industrial and Labour Information*, 14(4):124 (Apr. 27, 1925).

[14] Wehrwein, "The Institute's Study of Land Tenure," 289.

[15] Louise E. Howard, *Labour in Agriculture: An International Survey*, 297 (London, 1935).

and intelligent enough to avoid all unexpected disasters, natural or personal. Perhaps he has to obtain a loan from a bank in order to purchase his farm or has to buy it by an amortization drawn up by the owner. But he pays off the debt from his own purse. Hitherto he was probably in the hire of his parents, and only later he leased the farm from them and eventually came to the stage of purchasing the farm and operating it in his own name. There is not much difference in the process if he works for somebody else rather than his parents. In a word, he is able to ascend from the bottom rung of the ladder to the higher rungs with no, or only a negligible, help from others, private or public. This is one form of mobility.

On the other hand, there is *the static society*. In such a society, the economic and social advantages and handicaps vary to a large degree according to the various classes involved. Inheritance plays an important role in the transference of property. The social classes are well stratified and even ossified to a certain degree. Men born in the humble classes can hardly climb up, and the nobles or gentry do not easily slip down. There remains only a small number of young peasants who climb strenuously one or two steps probably through the help of governmental legislation, loans, or sometimes philanthropic assistance. This is quite a different form of mobility.

Bearing this distinction in mind, we are in a better position to contrast the agricultural ladders of the older countries with the newer. By "older" country we mean a country which retains most of her feudal heritages; by "newer" country, one that has little or no feudal heritage. Great Britain, France, India, and China represent the former and the United States, Australia, New Zealand, etc., the latter. The feudal society is a typically static one. The function of industrialization is to rejuvenate a static society into a dynamic one.[16] As a rule, when a country is old, the society usually remains more static, and the people inevitably become less mobile on the ladder. Only the second form of mobility more or less exists. In a newer country, on the contrary, the society is comparatively dynamic, and the mobility on the ladder is largely more of the first form. Therefore, the nature of the agricultural ladder in a new country is more like an organism, and in an older country it approximates a pyramid.

[16] For considerable discussion, see R. H. Tawney *Equality* (London, 1931).

The different types of agricultural society also foster the different types of the ladder. In a dynamic society, the agricultural ladder offers opportunity for advancement to a majority of the farming population; this may be called *the broad or wide ladder*. On the other hand, if the ladder exists only for the movement of a very small proportion of the farming people, as in the static society, it is *the narrow ladder*. Subsequently, if the ladder is wide, its rungs serve as stepping stones by which the farmers climb up or down. If the ladder is narrow, the rungs become barriers by which the whole farming population is stratified. Of course, this is only true on a theoretical basis. Since there is no absolutely static or dynamic society, we can find only societies with complete or incomplete ladders but no society with a perfect ladder or with no ladder at all. The ladder may be either complete or incomplete in length or height. If it contains four rungs, namely agricultural labor, the farm tenant, the encumbered or unencumbered owner, and the retired farmer or landlord, it is considered complete. Lacking any one of these four main rungs, it may be considered incomplete.

An ordinary ladder may be climbed in two directions, upward and downward. The movement on the agricultural ladder, therefore, has also two aspects, ascension and descension. It is widely held in the United States that ascent on the agricultural ladder is desirable and that descent is undesirable, but this is not always true. If the ascension, say the acquisition of farm ownership, is achieved through easy and undesirable methods such as inheritance or marriage, it may result in more evil than advantage. On the other hand, if the descension serves as a means of natural selection, *i.e.*, elimination of the incapable members from the higher rungs of the ladder, there is no reason why it should be deplored. The most competent farmer may slip down from a high rung of the ladder due to unexpected personal or natural calamities. But he will climb up again. We need not worry about such descension. The core of the problem is the chance or opportunity for climbing. As Ashby pointed out: "Individual climbers will make different rates of progress and arrive at the various stages at different ages according to their personal capacities and the economic advantages or handicaps with which they start. Eventually, individuals will arrive and stop at different steps in the ladder." This point may be amplified still further. We may assume that all unexpected factors

such as illness, famine, economic cycles, social disturbances, political measures, etc., can be equalized or minimized and that all individual climbers may start at the lowest rung of the ladder. It is obvious that they cannot all climb up to the highest rung because their ages are limited and their abilities and aptitudes are unequal. They will make "different rates of progress" and "stop at different steps." But the problem cannot be so simplified. We are born into a society with the institution of private property, and as long as it exists, the individual climbers simply cannot start from the same level. Here we have the most fundamental problem to be dealt with, that is "the economic advantages and handicaps with which they start." In a newer country, this problem is less serious, but in the Old World this is the crux of the whole question of farm land tenure. Here the agricultural ladder is narrow or has almost disappeared. Most of the landed properties are fixed in a small number of families or persons who belong to the higher social class. The economic advantages facilitate the gentry to hold on to their posts as long as they are willing to do so. On the other hand, handicaps of many sorts deprive the able members of the humble classes of the opportunity to climb any higher. The mediocrities remain in the high social class, and the able persons are oppressed and coerced to remain in obscurity. Ashby is right in saying: "Mobility of the agricultural class is to be desired. Rigid immobility is bad for the class of farmers, and on the whole bad for society."[17]

Men, regardless of the society in which they are found, are born with a desire to improve their living conditions and to be secure in their improved conditions. Owing to incompetency, the landholders can seldom handle their farms well enough in a static agricultural society. The majority of the landless classes are always among the poverty-stricken and soon come to foster a deep hatred of and hostility against the rich classes. These hungry but able members of the farming population will seize every possible chance to start a revolt. Therefore, an agrarian revolution is nothing more than a group of peasants and farm laborers, led by a considerable portion of able and energetic members, trying to climb up the agricultural ladder by violence instead of doing it individually and regularly. It seems plain that social revolution is only one form of social mobility.

In the foregoing discussion, it is obvious that there are two different forms of both ascent and descent of the agricultural ladder. In ascending the ladder, there is *regular climbing* and *violent climbing*. The former is usually conducted by individuals within the bounds set by the social order and social institutions. In the latter, the climbers simply rush up, as it were, and inevitably disturb or destroy the social institutions. The violent climbing is caused by the narrowing down or depriving of the opportunity for regular climbing among the peasants. It is apparently a result of the shrinkage or virtual absence of the agricultural ladder. The French Revolution in 1789 or the Russian Revolution in 1917 are good examples of such peasant revolts. In the practically static societies of the older countries, therefore, widening the agricultural ladder means lessening the possibility of social upheaval. Likewise, any political measure offered to facilitate the mobility on the ladder is always a good prophylactic that will go a long way toward saving the skeletonized society from being shaken to pieces. For instance, Ireland, Denmark, and many countries in Eastern Europe have already reaped rewards from improving the status of farm tenants and laborers after World War I.

There are also two forms of descent from the agricultural ladder. One is when the climbers slip down themselves and the other is when an individual or a group of individuals are detruded or forced down by others. The former is familiar to the farmers of the United States, New Zealand, Australia, and a part of Canada, and the latter has happened in France and Russia.

Furthermore, the agricultural society is a part of the whole society. The agricultural ladder, therefore, is only one type of social ladder, and the mobility of the farming population is a part of the mobility of the whole society. In dealing with the vertical social circulation, Pitirim Sorokin has made a remarkable survey of the different types of social ladders in his work, *Social Mobility*. He has pointed out seven main channels or ladders in vertical social circulation but has failed to mention the agricultural ladder, which, as a channel in a wealth-making organization, I think, should be the last to be omitted.[18]

[17] Ashby and Davies, "The Agricultural Ladder and the Age of Farmers," 10.

[18] Pitirim Sorokin, *Social Mobility*, 164–181 (New York, 1927).

In conclusion, the meaning of the agricultural ladder may be explained as *one type of social ladder in social mobility. Its function serves partly as "a sort of apprenticeship" to the young farm laborers and tenants to gain the "desirable experience in holding farms" but mainly as a means of social justification or modification by which the elites and the mediocrities in the different farming classes approach and obtain respectively their social positions and status.*

Let us analyze now in more detail the mobility on the agricultural ladder. The complete process of climbing constitutes, socially, a successful changing of social status by the individual climbers. But in the economic aspect, it is a process of accumulating wealth. So that, the life career of the climbers in a comparatively dynamic society involves not only the passing through of the stratified social classes from the lower layers to the higher but also the utilization of the agents of production successively from one to another. Speaking generally, the process engages the agents of production roughly: First, labor, then, tools and capital, and finally, land.

In the labor stage, or the first rung of the agricultural ladder, the young recruit starts to work with nothing beyond his bare hands. It is obvious that man exists by virtue of his mental and physical labor. Labor is an agent of production and also an underlying prop for men to climb the agricultural ladder.

From the social, economic and physical points of view, labor varies widely from man to man. One who inherits a high innate ability to work and has an excellent chance of development will undoubtedly be able to obtain an eminent position socially and economically if society remains dynamic. On the other hand, one will have to settle down as a member of a more humble stratum if one's natural ability is low or not high enough to overcome environmental handicaps. In a dynamic society, therefore, the mental and physical laboring power will be the only means by which a man's social achievements are measured. In other words, in a perfectly dynamic or ideal society, one's innate ability is the only factor in determining one's social position. But as soon as the society becomes static, the situation will gradually be changed. The more static the society, the more divergent will be the social stratification from the innate ability of individuals. Men of the poorer classes may not be deficient in laboring power, but as such powers are undeveloped, they are handicapped and cannot climb any higher than the status in which they are born unless a drastic change can be made in the social regime. This statement does not mean to deny the existence of laboring power in a static society. The potential amount of laboring power is the same as that of dynamic society, but its usefulness is severely limited and minimized.

Human labor itself is an agent of production, but the reward paid for it is in the distribution of national wealth. The amount of wages paid for labor is a vital pivot in determining whether the young recruit worker can or cannot climb up the ladder. It plays also an important role in determining whether the society is static or dynamic. In some older countries, such as India and China, the population pressure is heavy, and natural resources are generally not yet well developed. The farm laborer has little chance to get any higher pay for his labor beyond the costs of maintaining a bare existence. In Szechwan, China, before the outbreak of World War II, for instance, the agricultural laborer was earning a yearly wage averaging about $40 in Chinese currency plus house and board. With this meager income, the worker can only maintain a hand-to-mouth existence for himself and his family. There is hardly anything left when a whole year of drudgery is over. Under such circumstances the worker cannot climb up any higher on the agricultural ladder, and consequently the society remains static.

The second rung of the agricultural ladder is farm tenancy. In this stage, the young climber has gained the ownership of his farm equipment as a part of his accumulated wealth. He pays rent in share or cash or some other form for the farm he operates. The advantages gained are two-fold. He can reap the fruits of his own labor. He no longer has to pay interest for the use of farm equipment as he would if he used someone else's. Under the modern social system, farm equipment is always considered a form of capital by economists.

Here, again, the rate of rent paid by tenant farmers is a problem of national wealth distribution. If the rent is high, the farm tenant may virtually pay everything off other than the cost of living of his family. He can hardly expect to gain even a foothold on land. When a society is static, with the farming population dense and land very scarce, the tenant has to pay a high amount of rent for the use of the land. It follows, therefore, that the chance the tenant has of ascending the owner rung of the

agricultural ladder is very limited. This is certainly not an uncommon condition faced by all farm tenants in the Old World.

In regard to the owner rung of the ladder, it is usually divided into two sub-stages: The encumbered owner and the "free" owner. Apparently the encumbered owner obtains appropriatively all agents of production but still lacks part of the capital. He is indeed freed from the charges of rent and farm equipment. However, he remains still at the stage of working for a bank instead of working for a landlord. It is not uncommon that some borrow the capital from the former owner and pay interest to him instead of rent. Such a climber is very close to the status of an owner. But as shown by the statistical data for the United States, numerous such climbers have slipped down to the lower rungs because of the heavy burden of interest and will have to spend a much longer time to ascend again. They have been too much in a hurry to become owners. The encumbered ownership may be a cheerful stage for those who were formerly landless and now enjoy the prestige of gaining a foothold on land. It may also prove a dangerous stage if the climbers are lured by the prestige of being owners and fail to reckon their incomes accurately.[19]

The encumbered owner lacks only part of the necessary capital, and subsequently the rate of interest is the fundamental pivot which determines the success or failure of an encumbered owner to free himself from debts. But what factors determine the rate of interest? The important factor in determining the high or low rate of interest is the amount of capital reserves in a society. If a country is sparsely and newly settled and the society remains dynamic as in the United States, the economic opportunities are plentiful, the living conditions of the people are generally decent, and naturally the capital reserve is easily accumulated. Consequently, the rate of interest is relatively low. On the other hand, in the old Asiatic agricultural world, the society has long been skeletonized, the economic opportunities are rare, the people are generally poor, the capital reserve is scarce, and inevitably the rate of interest rises very high. This distinction between the agricultural societies of the United States and of China or India is very striking.

The rung of the unencumbered owner is the stage generally regarded as the fundamental prop in the mobility on the agricultural ladder. It is always the immediate goal of all climbers if they have no intention to go further. Upon reaching this stage, the climber has paid off his debt or amortization and has been freed from the burden of interest. From then on, his income increases, his security is confirmed, and his standard of living rises. With an owner farmer, all agents of production may be favorably combined and adjusted on a rational basis. He works his own farm, uses his own tools, employs his own capital, and operates all of these according to his own ideas and plans. If he makes no mistakes, he will be spared such troubles as land erosion, land hunger, under-cultivation, over-grazing, and so on. From the national point of view, the farm owners, as many writers have pointed out, represent the only force responsible for the peace and prosperity of an agricultural society.

After reaching the owner rung of the agricultural ladder, a farmer has two choices. He may go still higher. Either due to the sentiment of land lovers or the psychology of selfishness, or both, he wants to hold the status of land proprietor. He gets rich, when old age comes upon him, he withdraws his labor from the land. He may, or may not, sell the farm equipment to others but rents the farm out to collect a certain amount of rent. Finally he bequeaths the land to his heirs. This is landlordism. On the other hand the aged climber may simply quit the lifelong ladder. In the United States, there is a well-known phrase, "the retreat from the land." The old farmer retires from his farm, moves to a neighboring town, and lives on his accumulated wealth. His successor on the farm may be one of his sons, a relative, or a stranger. All the stages or rungs put together constitute for an American farmer a complete life cycle. In many cases, it is no wonder that the retired farmer is a landlord at the same time.

In the United States the concept of the agricultural ladder has been usually referred to as the ideal system of farm land tenure. In theory, it seems that this system of tenure should include at least the following aspects although thus far a complete description is lacking. First, there is "a normal flow of men" from the lower tenure stages to the higher. At any given time a cer-

[19] Cf. Thomson, "Gaining a Foothold on the Land," 35-36; George Stewart, "Can the Farmers of the United States Pay for Themselves?" *Journal of Farm Economics*, 2:177-193 (October 1920).

tain proportion of farmers will be found in the hired-man stage, a given percentage will be tenants, another, encumbered owners, free owners, and retired farmers. Second, there is also an age ladder among all farmers. The recruits found in the lowest stage will be young. They will be older as they make each change of status. Eventually the climbers leave the top rung of the ladder in their old age. Third, land must be available and serve as a sort of arch bridge on which the recruit farmers begin to climb up, at first, as mere farm hands; then, they purchase farm equipment; after a given period of time, they buy land with borrowed capital, and finally they reach the position of free owners. And, again, after a number of years, the old owners step off the agricultural ladder by "retreating from the land." Fourth, the agricultural ladder implies a process of natural selection; it sorts the farming population into a number of classes according to their capacities. "Individual climbers," as described by Ashby, "will make different rates of progress and arrive and stop at different steps in the ladder." Fifth, each step of progress means an accumulation of experience in handling both a farm and wealth. This is probably the panorama in the minds of American writers who have dealt with this ideal system.[20]

If these suggestions are acceptable, it is obvious that the ideal system of farm land tenure is inevitably based upon the following implicit assumptions. (1) The agricultural society in which the individual climbers live must be dynamic. In such a society, every recruit in the farming business has an equal chance to climb up the ladder. Inheritance, which is elsewhere more a bar than a help, plays no part in the progress of ladder climbing. (2) The agents of production are all workable and available for use in a reasonable combination. The man-land ratio should always be at or near the optimum point. Otherwise, the farmers in an overpopulated region may hardly get the arable land for cultivation or proprietorship; and the farmers in a frontier region will suffer from the scarcity of labor. (3) This ideal system is also based in no small part on the assumption that the aged farmers will retire. At a certain age, the old owner-operators should "retreat from the land" in order to give ground to new recruits. The reason is easy to explain. In an older country, the cultivated area of land is comparatively fixed. If the old farmers hold their land too long, the consequence is that the candidates for landownership must await just that much longer and the flow of men will be thereby retarded. Therefore, landlordism is an obstacle in the way of working out an ideal system of farm land tenure. (4) There is another notable implication. There should be no special social and economic advantages and handicaps in the progress of the individual climber's ascent. Without this assumption, the complete theory can hardly be made consistent. Even when we can minimize the time factor in the economic cycles, the economic advantages in our society facilitate some to gain easily the top rung of the agricultural ladder. The handicaps, on the contrary, prevent the others from leaving even the bottom rung. Moreover, it is only under this assumption that the agricultural ladder could serve as a means of natural selection which is "a good thing" for individuals as well as for society as a whole. In a word the validity of the ideal system of farm land tenure can be proved only when the foregoing implications are taken as prerequisites.

So long as the theory of the ideal system is not categorical in nature, the question of whether it has existed or can be worked out, is worth careful consideration. A complete mobility of the agricultural society seems never to have existed, even in the golden period of agriculture in the United States.[21] Under the modern social institutions of private property, opportunity for individuals to climb the ladder is far from equal. Some get nothing at all from their parents. Others may have inherited a large amount of landed property. They do not start on the same level at first. Certainly, if the society is perfectly dynamic, this unequal chance can only affect the climbers at the beginning of their careers. That is to say the able members may ultimately overcome this initial inequality by their own superior ability and strenuous effort. As we have stated previously, a perfectly dynamic society had never existed in history and does not exist anywhere in the world

[20] See Ely and Galpin, "Tenancy in an Ideal System of Landownership"; William Bennett Bizzell, *Farm Tenantry in the United States*, 309–319 (Texas Agricultural Experiment Station, *Bulletin 278*, College Station, 1921); George S. Wehrwein, "The Place of Tenancy in a System of Farm Land Tenure," *Journal of Land & Public Utility Economics*, 1:71–82 (January 1925), and "The Problem of Inheritance in American Land Tenure," *Journal of Farm Economics*, 9:163–175 (April 1927).

[21] Ashby and Davies, "The Agricultural Ladder and the Age of Farmers," 11.

today. Therefore, the so-called ideal system of land tenure can only be put as an ultimate aim. Whether it can be worked out without a drastic change of the social system leaves much room for doubt.

The ideal system of farm land tenure should be based on the mobility of the agricultural ladder and, in turn, the mobility of the agricultural ladder should be based on the dynamic nature of society. Viewing the numerous and confusing arguments of farm tenancy in the United States and other countries, I am inclined to think that this is the reasonable solution of the problem. In a most dynamic society, tenancy may serve merely as a stage in the ideal system of farm land tenure and also as a rung in the agricultural ladder. If the society has been partly dynamic and partly static, the picture will change accordingly. The farm tenancy of America in the recent decades represents such a phenomenon. As Ely said:

> We do know that there is much bad tenancy. We do know that poor tenants account for a part of this bad tenancy. We do know that there is much good tenancy. We do know that tenancy is very frequently a rung on the agricultural ladder. We find in some places that tenancy is merely a method of transferring property from generation to generation—the tenants being sons, son-in-laws, etc. We find farms in which every tenant becomes a farm owner, or one hundred per cent owner-producing farms.[22]

In another article, Ely reiterated the same point: "Tenancy may be a good, and it may be an evil; as we find it in the United States, it is partly a good and partly an evil."[23] As long as society remains dynamic, a good part of tenancy will be found useful. But we can go no further. When the agricultural society has become ossified, tenancy serves no longer as a rung but merely a bar. The nature of the tenancy problem inevitably changes. Tenancy would then be an evil. Arthur Young, in describing tenancy in the most static society, said truthfully: "The magic of property turns sand into gold. Give a man the secure possession of a bleak rock, he will turn it into a garden; give him a nine years' lease of a garden, and he will convert it into a desert."

The same problem in different places or at different times may represent quite different things. The availability of the mobility of the agricultural population is conditioned by the structure of the rural community. As Wehrwein said:

> The real "tenancy problem" lies not with the men who successively climb the ladder. Tenancy to them is merely a step to ownership and a very efficient part of the journey. The problem lies with the permanent tenant class—those who fail to reach the goal, who never try to, or, who having tried to become owners, revert to tenancy, discouraged and ambitionless. These are the men who touch the hearts of those who consider the human relations involved in tenant agriculture.[24]

[22] Richard T. Ely, *Outlines of Land Economics*, 3:157 (Ann Arbor, Mich., 1922).

[23] Ely and Galpin, "Tenancy in an Ideal System of Landownership," 180.

[24] Wehrwein, "The Place of Tenancy in a System of Farm Land Tenure," 78.

THE EARLY HISTORY OF LIVESTOCK AND PASTURES IN PUERTO RICO

CAYETANO COLL Y TOSTE'S NOTES ON *La Ganadería*[1]

Translated by DOLORES MENDEZ NADAL *and edited by* HUGO W. ALBERTS

Cattle raising was the main source of public wealth in Puerto Rico following the exploitation of the gold-bearing mines.

On his second voyage, it is known that Christopher Columbus, in addition to loading his vessels with wheat, rice, barley, grapevine cuttings, sugarcane, and vegetables, did not fail to provide cattle,

[1] The original Spanish text of the section on "La Ganadería" in Cayetano Coll y Toste's "La Propiedad Territorial en Puerto Rico" is in the *Boletín Histórico de Puerto Rico*, 1:249–252 (San Juan, 1914). The translation here printed was prepared by Mrs. Dolores Mendez Nadal and Dr. Hugo W. Alberts when they were members of the staff of the U. S. Soil Conservation Service in Puerto Rico. Mrs. Nadal now resides at Stop 26, Hato Rey, Puerto Rico, and Dr. Alberts is agricultural attache at the American Embassy in Ecuador.—*Editor.*

horses, sheep, goats, swine, and donkeys for breeding.[2]

Cattle and swine increased in Española[3] to such an extent that in the early days of the colonization of the city of Santo Domingo, about 1530 to 1540, 4 pounds of meat sold for 2 maravedíes.[4] About 300 to 500 head of cattle were speared in the field to get their hides for exportation to Sevilla, Spain. Beef was used very little or not at all, and most of the carcasses were abandoned. A milch cow was sold for 1 peso and a sheep for 1 real.[5] The hogs ran wild and unclaimed in the mountains. The horses brought from Andalucía became acclimatized so well and they multiplied to such an extent that the current price of a good horse or mare was from 3 to 4 pesos.

This abundance of cattle in the neighboring island of Española disappeared by 1561, according to the report, La Relación de la Española, which was sent to King Phillip II by the lawyer Echegoián. The cause was that the calves were killed for their hides and were not kept for breeding. Moreover, the domestic dogs turned wild, and more than 100,000 lived on cattle, especially calves.

The first to bring cattle to Puerto Rico was Vicente Yañez Pinzón, who, having obtained a royal permit in 1505 to colonize the island, ordered Garci-Alonso Cansino, the master of the vessel Santa Cruz, to liberate goats and hogs in the western part of the island, the place where they landed. On August 8, 1505, Cansino complied with this order.

Cattle and horses were also brought into the island by the explorer Juan Ponce de León in May 1509 in the vessel of Alonso San Martín. By the end of the same year, the captain, who was the settler of the hacienda, Ziguayagua, in El Higüey, imported calves, mares, and hogs in order to increase the livestock raising in the island.

The King encouraged this colonization. On February 28, 1510, he ordered Viceroy Diego to bring from Española all the cattle desired by the settlers of Boriquén.[6] Permits were granted in April of the same year to Pedro Moreno and Micer Gerón to import from Santo Domingo into Puerto Rico, 2 mares one for each.

On February 26, 1511, the King ordered from Sevilla, that a permit be granted to Luis Fernández de Alfaro, who in 1504 sailed for Española with 36 cows and a bull, to go to the island of San Juan with his breeding stock and that he should have no obstacle put in his way to bring in 2 mares.[7]

With this transfer of cattle from Española to San Juan, cattle raising increased. In 1511 the natives rebelled, and this delayed development. As soon as the rebellion was over, the conqueror and the settlers devoted their time again to cattle raising. In 1512 the colonization of Boriquén was in progress. In 1515, Sancho Velázquez, prosecutor of the *audiencia* of Santo Domingo, notified the King that about 35 families were already established in the Partido de Puerto Rico and about the same number in the Partido de San Germán.[8]

On October 4, 1527, there was a terrible hurricane which lasted 24 hours. Most of the capital,[9] including the church, was demolished. It caused much damage to the haciendas, and many head of cattle were drowned. Rich landowners like Pedro Moreno, lieutenant of the governor, were impoverished.

In 1530 hurricanes struck the island on July 26 and August 22 and 31 respectively. These storms caused much loss of livestock and increased the cost of living. To all these calamities were added the depredations of the Carib Indians and the French who attacked the farms along the coast and the small towns. Moreover, from the fabulous tales of the conquests of the Spaniards in Peru and Mexico in 1533 and 1534, brought by the ships that came to Puerto Rico to buy horses for the conqueror Pizarro, there arose a fever among the people of San Juan to emigrate which had to be curtailed by Governor Francisco Manuel de Lando with great severity. In 1535 a permit was granted

[2] The second expedition of Columbus left Cádiz, Spain, on Sept. 25, 1493, and returned on June 11, 1496.

[3] La Isla Española is Hispaniola, the island in the West Indies, comprising the Dominican Republic and the Republic of Haiti. The island was discovered and named La Isla Española by Columbus in 1492, and its name subsequently became latinized as Hispaniola.

[4] A maravedí was an old Spanish coin of the smallest value worth approximately one-fourth of a cent.

[5] A peso was worth approximately $1.00 and a real approximately 10 cents.

[6] Boriquén is the island of Puerto Rico.

[7] San Juan is the island of Puerto Rico.

[8] The Partido de Puerto Rico comprised the east half of the island and the Partido de San Germán the west half.

[9] The present city of San Juan.

to Asensio de Villanueva to bring stallions from Andalucía to Jayuya for the improvement of his herd.

Until 1541 each settler had his cattle on lands to which he had no deed of property. In the same year Emperor Charles V decreed that the grazing lands, forests, and streams in general were to be held in common on the island. This was the origin of the *Hatos Públicos* or public pastures. The settlers raised a humble protest to the crown through the church, but the royal decree remained as it stood, despite what the high clergy said to the monarch in a letter of February 10, 1542 that "the right for all to place their cattle wherever they please would be harmful. The land is rough, containing many mountains and few plains. The cattle are wild and very hard to take from the mountains and ranges although there is an abundance of dogs. The settlers can not take them profitably. If all settle where they please, all the haciendas sown to cassava [cazabi bread], corn, and other subsistence crops would be lost. The settlers present to Your Majesty the inconveniences of complying with your royal decree; and fearing the confusion and disorder that compliance would bring, we mention it to Your Majesty. Two thirds of the island is uninhabited."

There was some disorder on account of the enactment of the decree in regard to the public grazing grounds, and the royal officers were unable to establish them in the beginning, due to the strong opposition of the officials of the capital. It was necessary to ask for assistance from the *audiencia* of Santo Domingo. In 1545 the rebellion of the settlers continued, and at last the private farms were recognized.

In 1581 cattle and swine were raised in the Sibucó Valley, where the San Vicente sugar *central* is found today.[10] The finest herds of cattle were raised near the Coamo River. Due to the lack of Indians and Negro slaves to attend the pasture lands, cattle raising decreased in the Manatí and Abacoa river valleys. Due to the attacks of the French on the town of San Germán in 1528, 1538, and 1554, cattle raising decreased greatly in the Guaorabo (Gurabo) Valley. The Carib Indians joined the French in their depredations, and as a result the valleys of the Guadianilla (Guayanilla), Xacagua (Jacagua), Guamaní, Mautabo, Guayanés, Jumacao (Humacao), Daguao, Faxardo (Fajardo), Río Grande, and Loiza were depopulated.

In 1614, Captain Nicolás Cardona addressed a memorial to the King. In this memorial he reported his discoveries and services in California. He said that while sailing around the island of San Juan he anchored in the capital's bay and was informed of the scarcity of food and that the soldiers in this presidio were starving. Cardona ordered that two of his boats were to stay at the island and render weekly services, bringing turtles that were caught nearby and distributing them among the soldiers stationed at El Morro, the Dominican priests, and the reduced population. Some of the food he had for his soldiers was distributed among the people. Such was the scarcity found in this city by the said Cardona. It was a duty of all cattle owners to come to the capital and agree to auction the meat that was to be used by the garrison and the population.

The livestock moved freely over the unappropriated country, hid in the craggy regions, and were very difficult to hunt. In 1616 the settlers organized tramping expeditions. The animals were hunted, and their hides were sold to smuggling foreign ships.

In 1644 scarcity of food in the capital was still unbearable. It was very difficult to buy meat daily. When there was any it was sold at 18 maravedíes per *arrelde*.[11] Wheat bread was found very seldom. Cassava was sold at ½ real per cake, each weighing 2½ pounds. A chronicler said: "The worst thing in the city, from my viewpoint, is that there is not a single store where one can send for anything unless he barters something which he has."

On the island the export of hides was continued in spite of the scarcity in the capital. In 1647, 10,000 hides were sent to Sevilla. In addition to the figures of legal trade the amounts that were smuggled must be estimated.

It again became necessary to force the cattle owners of the island to supply meat to the city by public auction because they were doing it very inefficiently. In 1656 Governor José Novoa levied a tax of ½ real for each hog killed in the capital city. This yielded 200 pesos the first year, thus indicating a consumption of 8 to 9 hogs daily.

In 1765 there was no market in the city of San Juan. The governor compelled the settlers of the

[10] The San Vicente *central* or sugar mill is near Vega Baja.

[11] An *arrelde* was approximately 4 pounds.

nearest neighboring district to supply the market with food for certain days, and the aldermen were to see that this order was fulfilled and to adjust the prices. By that time livestock in the island consisted of a total of 121,935 head. This was divided as follows: 18,577 horses and mares; 1,371 mules; 1,031 donkeys; 44,633 oxen, cows, and calves; 5,735 sheep; 2,683 goats; and 47,905 hogs. The current prices for each were as follows: a mule, 40 pesos; a horse, 25; a good steer, 16; a sheep, 2; and a hog, 5. The residents had under cultivation 4,579 small farms, and 269 ranches were used for animal husbandry.

By 1775 animal husbandry had increased. It multiplied rapidly due to the abundance of pasture and its good quality. Small farms had increased in number to 5,581, and the ranches had decreased to 234. The livestock had increased as follows: cattle, 77,384; mules, 1,524; horses, 23,195; and the rest, 49,050.

The return of private property in land and the discontinuation of the public pastures encouraged the normal development of livestock on the island and permitted agricultural development to adjust itself to better economic principles.